

Document #: SRS-0003	
Software Requirements: Product Manager.doc	

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## 1 Overview

A TigerStop machine is a tool used, generally, by the woodworking and cabinetry industries. The TigerStop has the ability to precisely position wood, or other material, up to a saw for cutting. Essentially eliminating the need to measure a board with a tape measure. A TigerStop controller can contain many programs for automating the cutting process. A user can program the controller to cut all of the boards for making a particular product and use that program over and over again.

Cabinet shops typically use software designed to create cabinets in a CAD (Computer Aided Drafting) environment. Cabinet Vision, CabnetWare and Pattern System are examples of such programs. Product Manager will take the resulting output file from these CAD programs and translate that data to a form that the TigerStop controller can understand.

TigerStop Inc has an existing application called TigerLink that performs the basic functionality outlined below. However, TigerLink has been shown to be confusing and difficult for customers to use. Customer surveys indicate that simplifying the process will be of immense benefit to the customer. Product Manager will be a upgrade/replacement program for TigerLink. Product Manager will perform the same basic functions but will involve less user interaction and more automated processes.

The Product Manager™ will be a program designed to manage the creation of cutlists and to transmit the cutlist to the TigerStop™ controller. In its most basic form, the Product Manager will:

- 1) Translate - Translate the customer's cutlist file, generated by a third party vendor, into a form that TigerStop™ can utilize.
- 2) Selection - Select the parts from the cutlist that are going to be cut on the TigerStop.
- 3) Manipulate - Allow the customer to manipulate the cutlist information.
- 4) Transmit - Transmit the cutlist information to the Tigerstop™ controller.

## 2 Development and Operating Environments

The Product Manager™ will be based upon the existing Product Manager™ (TigerLink™) program.

Product Manager will be written in Microsoft Visual C++, Visual Studio .NET 2003 or later.

The Product Manager will use the Dundas Ultimate Toolbox library version 8 or later.

The Product Manager will use the Dundas Ultimate Grid 97 control.

The Product Manager™ will operate on the Microsoft Windows™ 98, 2000 and XP platforms.

## 3 External Interface

The Product Manager will provide feedback to the user via a Graphical User Interface (GUI).

The GUI will use the standard Microsoft Windows™ keyboard combinations to perform standard functions, as far as is possible.

The program will provide feedback to the user utilizing terminology native to the cabinet making/woodworking industry.

The Product Manager will interface with a TigerStop™ controller via the X-Modem file transfer protocol.

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## **4 Functional Requirements**

### **4.1 Installation**

- 4.1.1 Product Manager will be installed by a standard installation method.
- 4.1.1.1 The installation program will create the directory structure for Program Manager
- 4.1.1.2 The installation program will create the registry entries for Product Manager.
- 4.1.1.3 The installation program will install Program Manager on supported Operating Systems.
- 4.1.1.4 The installation program will setup icons for the user.
- 4.1.1.5 Icons will be placed on the desktop.
- 4.1.1.6 Icons will be placed on the Start menu.
- 4.1.1.7 The installation program will setup shortcuts to Product Manager for the user.
- 4.1.1.8 The installation program will perform as much of the initial configuration for the Product Manager as possible.
- 4.1.1.9 The installation program will register all components that need to be registered in the system registry.
- 4.1.1.10 The installation program will copy all files needed by Product Manager to the target computer.
- 4.1.1.11 Refer to the Product Manager Installation Program Software Requirements Specifications (SRS) document for complete requirements.
- 4.1.1.12 The installation program will determine the location of the cutlist generating program.
- 4.1.1.13 The location of the cutlist generating program will be stored in the system registry.
- 4.1.1.14 Product Manager will be distributed by Compact Disk (CD-ROM).
- 4.1.1.15 The CD autorun will have a menu allowing the user to choose what to do based on the available programs and documents contained on the CD.
- 4.1.1.16 Product Manager will be able to be distributed by Internet.
- 4.1.1.17 The installation program will display an End User License Agreement (EULA) to the user.
- 4.1.1.18 The user must agree to the EULA before installation can continue.
- 4.1.1.19 The installation program will install the DLLs necessary for the RoboHelp help system to function.

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## **4.2 Splash Screen**

- 4.2.1 A splash screen will be displayed to the user at program start.
  - 4.2.1.1 The splash screen will have an option for the user to continue on to use the program
  - 4.2.1.2 The splash screen will have an option for the user to open the Product Manager tutorial.
  - 4.2.1.3 The splash screen will have an option for the user to open the tigerstop.com website.
  - 4.2.1.4 The splash screen will have an option for the user to open the Product Manager help file.
  - 4.2.1.5 The splash screen will have an option for the user to not display the splash screen.
  - 4.2.1.6 On first run the user will be asked if they want to open the basic operation tutorial.

## **4.3 Main Screen**

- 4.3.1 The Product Manager main user interface will emulate a spreadsheet.
  - 4.3.1.1 Each column will be able to be resized.
  - 4.3.1.2 Users will have the ability to sort on any column.
  - 4.3.1.3 Users will be able to hide any column
  - 4.3.1.4 Users will be able to show hidden columns.
  - 4.3.1.5 Each field on the spreadsheet will be editable by the user.
  - 4.3.1.6 Users will be able to change the order of the columns.
- 4.3.2 The main GUI screen will display the job(s) numbers to the user.
  - 4.3.2.1 The job number or numbers that are derived from the source file(s) will be displayed to the user.
- 4.3.3 The main GUI screen will display the source file(s) to the user.
  - 4.3.3.1 The name and path of the source file(s) will be displayed to the user.
- 4.3.4 Users will be able to create cutlists
  - 4.3.4.1 Users will be able to create a new cutlist file.
  - 4.3.4.2 Users will be able to save a cutlist file as a differently named file.
  - 4.3.4.3 Users will be able to load cutlist files.
  - 4.3.4.4 Users will be able to edit cutlist files.
- 4.3.5 Users will be able to drag and drop the contents of one tab to another tab.
  - 4.3.5.1 Users will be able to drag and drop single lines from one tab page to another tab page.
  - 4.3.5.2 Users will be able to drag and drop multiple lines from one tab page to another tab page.

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4.3.5.3 All of the same part descriptions will follow during the drag and drop process. If the user drags a single line that the part description is a “door” for example, all of the parts that are labeled “door” will be moved to the new tab page as well.

4.3.6 Users will be able to drag and drop multiple lines from one tab page to another tab page.

4.3.7 The Product Manager will be able to import cutlist files.

4.3.7.1 The cutlist files may be Cabinet Vision™ files.

4.3.7.2 The cutlist files may be CabnetWare™ files.

4.3.7.3 The cutlist files may be Pattern System™ files.

4.3.7.4 The cutlist file may be an Excel™ comma separated value (CSV) file.

4.3.7.5 The cutlist file may be an Excel™ spreadsheet.

4.3.8 Users will be able to upload a cutlist to the controller.

4.3.8.1 Users will be able to select a destination cutlist in the controller.

4.3.8.2 The GUI will display to the user if the selected cutlist in the controller is empty or not.

4.3.8.3 Users will be able to clear a cutlist out of controller memory.

4.3.8.4 Users will be able to clear all cutlists out of controller memory.

4.3.8.5 Users will be able to download a single cutlist to the controller.

4.3.8.6 Users will be able to download multiple cutlists to the controller.

4.3.8.7 Cutlists will be sorted largest cut first for optimization.

4.3.8.8 Users will be able to select for optimization or non-optimized.

4.3.8.9 Cutlists will not be sorted for non-optimized cutlists.

4.3.8.10 The cutlists will be scanned prior to upload for cuts that exceed the maximum length of the TigerStop.

4.3.8.11 The cutlists will be scanned prior to upload for cuts that are below the minimum length of the TigerStop.

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- 4.3.9 Users will be able to select a type of cutlist.
  - 4.3.9.1 Users will be able to select the cutlist as a set point cutlist
  - 4.3.9.2 Users will be able to select the cutlist as a pusher cutlist.
  - 4.3.9.3 Users will be able to select the cutlist as a pattern cutlist.
- 4.3.10 Users will be able to send language files to the controller.
  - 4.3.10.1 Users will be able to select the language to be a primary language.
  - 4.3.10.2 Users will be able to select the language to be a secondary language.
- 4.3.11 The Product Manger will maintain a list of the most recently used files.
  - 4.3.11.1 A list of 5 of the most recently used files will be maintained.
  - 4.3.11.2 Users will be able to select a comport to communicate with the controller.
- 4.3.12 Users will be given an option for including kerf in the cutlist
- 4.3.13 Users will be given an option to change units of measurement.
  - 4.3.13.1 Users will be able to select the English unit of measurement.
  - 4.3.13.2 Users will be able to select the Metric unit of measurement.
  - 4.3.13.3 All measurements uploaded to the controller will be in the English unit of measure no matter what the original unit of measurement was.
- 4.3.14 The Product Manager will be easily upgraded.
  - 4.3.14.1 As much of the functionality as possible should reside in a Dynamic Link Library (DLL) or Libraries.
  - 4.3.14.2 The functionality that is not likely to change in the near future should be placed in a separate DLL than the functionality that is likely to change over time.
- 4.3.15 Product Manager will be easily scaleable
  - 4.3.15.1 Product Manager will be designed in such a way that new functionality can be easily added.
  - 4.3.15.2 Product Manager source code will be modular in design.
  - 4.3.15.3 Very little functionality should reside within the GUI.
- 4.3.16 The Product Manager will connect to the TigerStop™ controller *as needed*.
  - 4.3.16.1 The Product Manager will attempt a connection to the controller 3 times
  - 4.3.16.2 The Product Manager will automatically change baud rates while attempting to connect to the controller.
  - 4.3.16.3 The default baud rate will be 115200 bps.
  - 4.3.16.4 The Product Manager will step down the baud rate if communications fail.
  - 4.3.16.5 Product Manager will startup in an off-line state by default.

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- 4.3.17 Communications diagnostics will be incorporated into the Product Manager.
- 4.3.17.1 Product Manager will produce a problem report that the user can email to TigerStop for evaluation.
- 4.3.17.2 The problem report will contain as much information about the problem and system that may have contributed to the problem.
- 4.3.18 The user will be able to define head and tail cuts as local or global.
- 4.3.19 The Product Manager will be able to display all of the cuts in a cutlist.
- 4.3.19.1 There will be a tab for each cutlist.
- 4.3.19.2 Each cut in the cutlist will be editable independently of other cuts.
- 4.3.20 The Product Manager will be able to edit cutlists in the controller.
- 4.3.20.1 Product Manager will be able to download a cutlist from the controller.
- 4.3.20.2 The downloaded cutlist will be able to be edited by the user.
- 4.3.20.3 The cutlist will be able to be uploaded back into the controller.
- 4.3.21 The Product Manager will monitor cutlists within the controller.
- 4.3.21.1 The Product Manager will display cutlist information for each cutlist in the controller
- 4.3.21.2 For each cutlist that is displayed to the user, the Product Manager will display cuts that have already occurred differently than other cuts.
- 4.3.21.3 For each cutlist that is displayed to the user, the Product Manager will display the remaining cuts that have not been processed differently than other cuts.
- 4.3.21.4 The Product Manger will display the active cut being processed differently than the other cuts.
- 4.3.21.5 The display of the cutlist(s) will occur in real time.
- 4.3.21.6 The Product Manager will display the active cutlist for any TigerStop product that is connected to the Product Manager.
- 4.3.22 Product Manager will maintain a history report.
- 4.3.22.1 The history report will contain a yield of the cutlist
- 4.3.22.2 The report will contain the percentage of cutlist that has been completed.
- 4.3.22.3 The report will contain the number of cuts completed in the cutlist.
- 4.3.22.4 The report will contain the number of cuts left in the cutlist.
- 4.3.23 Product Manger will have printing capabilities
- 4.3.23.1 Users will be able to print cutlist files.
- 4.3.23.2 Users will be able to print a report on the cutlist data uploaded to the controller.
- 4.3.23.3 The report will contain the wood species.
- 4.3.23.4 The report will contain the width of the material.
- 4.3.23.5 The report will contain the source.
- 4.3.23.6 The report will contain the name of the cutlist.
- 4.3.23.7 The report will contain the destination in the controller.
- 4.3.23.8 The report will contain the total linear feet of material needed.

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4.3.24 Controls will display tool tips.

4.3.24.1 Tool tips will be displayed by default.

4.3.25 Users will be able to configure the tabs.

4.3.25.1 A right mouse click menu will be associated with the tabs

4.3.25.2 The user will be able to change the name of the tab.

4.3.25.3 The user will be able to change the cutlist number.

4.3.25.4 The user will be able to enable the tab for upload to the controller.

4.3.25.5 The user will be able to disable the tab for upload to the controller.

4.3.26 A tool bar on the main screen will provide the user shortcut buttons to the main functions of the program.

4.3.27 Users will be able to define a cutlist configuration.

4.3.27.1 The cutlist configurator will ask the user to locate the source file.

4.3.27.2 The user will be required to define the file delimiter.

4.3.27.3 The user will be required to define the fields in the record.

4.3.27.4 The user will be required to define a field display order.

4.3.27.5 The user will be required to uniquely name the cutlist definition.

4.3.28 The tab names will be the material and parts that the user has selected on the Part Selection screen

4.3.28.1 Each tab will display the name of the species of the part

4.3.28.2 Each tab will display the part name.

4.3.29 A right click menu will contain a "What's this" help query.

#### **4.4 Part Select**

4.4.1 Users will be able to filter the materials displayed.

4.4.1.1 The user will be able to select parts to work with.

4.4.1.2 The Parts listbox will contain each unique part name in the imported cutlist

4.4.1.3 The Selected Parts listbox will contain the species, dimension and part name for each part selected in the Parts listbox. If the part selected in the Parts listbox is "Toe Kick", then the Selected Parts listbox might contain "Oak 2X3 Toe Kick", "Cedar 1 1/2X3 Toe Kick".

4.4.1.4 By default all of the Selected Parts will be in separate cutlists and tabs on the main screen.

4.4.1.5 Users will be able to delete Selected Parts from the listbox.

4.4.1.6 Users will be able to combine Selected Parts that are non-related onto a single tab.

4.4.1.7 Users will select parts from a listbox.

4.4.1.8 Selected parts will be displayed in a separate listbox.

4.4.1.9 Users will be able to select individual parts

4.4.1.10 Users will be able to select multiple parts.

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- 4.4.1.11 Selected Parts will be displayed according to species and part name.
- 4.4.1.12 Users will be able to remove parts from the Selected Parts listbox.
- 4.4.1.13 Part names will be matched against a master parts dictionary.
- 4.4.1.14 For part names that are not in the master dictionary, the user will be prompted to add the part name to the dictionary.

## **4.5 Product Manager Configuration**

- 4.5.1 The Product Manager will setup default values based on user input on initial startup.
  - 4.5.1.1 The user will be able to select a different default supported cutlist generating program.
  - 4.5.1.2 Product Manager will be able to automatically interpret the cutlist based on the cutlist program.
  - 4.5.1.3 The user will be able to enable or disable the splash screen.
  - 4.5.1.4 The user will be able to select "junk" fields to be displayed.
  - 4.5.1.5 The user will be able to deselect junk fields to be displayed.
  - 4.5.1.6 The user will be able to enable tool tips.
  - 4.5.1.7 The user will be able to disable tool tips.
  - 4.5.1.8 The user will be able to define how many TigerStops that the user will interface with.
  - 4.5.1.9 The user will be able to create a logical name for each TigerStop.
  - 4.5.1.10 The user will be able to assign a comport to the Tigerstop.
  - 4.5.1.11 The user will be able to define a maximum length for each TigerStop.
  - 4.5.1.12 The user will be able to define a minimum length to each TigerStop.
- 4.5.2 Product Manager configuration information will be stored in the system registry.

## **4.6 Label designer**

- 4.6.1 Product Manager will generate labels.
  - 4.6.1.1 Users will be able to select a size of label.
  - 4.6.1.2 Users will be able to visually design a label.
  - 4.6.1.3 Users will be able to drag and drop supported fields onto a virtual label.
  - 4.6.1.4 Users will be able to edit the field name
  - 4.6.1.5 Users will be able to delete the field from the virtual label.
  - 4.6.1.6 Labels may have a width
  - 4.6.1.7 Labels may have a thickness
  - 4.6.1.8 Labels may have a length
  - 4.6.1.9 Labels may have a barcode
  - 4.6.1.10 Labels may have a part x of x.

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## **4.7 Tutorials**

- 4.7.1 Product Manager will contain a basic usage tutorial.
- 4.7.2 Product Manager will contain a language upload tutorial.
- 4.7.3 Product Manager will contain a language creation tutorial.
- 4.7.4 Product Manager will contain a cutlist upload tutorial.
- 4.7.5 Product Manager will contain a cutlist creation tutorial.

## **4.8 General**

- 4.8.1 The Product Manager will support multiple languages.
  - 4.8.1.1 The language files will be ASCII text files.
  - 4.8.1.2 Users will be able to add new language files.
  - 4.8.1.3 The Product Manager must be able to handle extended character sets (Unicode).
- 4.8.2 The Product Manager will include a help file
  - 4.8.2.1 The help file will include a tutorial on use of the Product Manager.
  - 4.8.2.2 The help file will include context sensitive help.
  - 4.8.2.3 The help file will contain a glossary of terms.
  - 4.8.2.4 A link on the help menu will open a browser window
  - 4.8.2.5 The browser will automatically connect the user to the tigerstop.com product manual page.
- 4.8.3 Product Manager will save the user workspace as a "setup" file.
  - 4.8.3.1 The setup file will contain all of the information necessary to recreate the workspace.
  - 4.8.3.2 At startup, the program will load the last setup loaded, if any.
  - 4.8.3.3 Users will be able to create new setup files.
  - 4.8.3.4 Users will be able to delete setup files.
  - 4.8.3.5 Users will be able to save setup files at any time.
  - 4.8.3.6 Users will be able to save setup files as a different named file.
  - 4.8.3.7 Users will be able to load a setup file.
  - 4.8.3.8 Product Manager will prompt the user to save the setup file prior to closing.
- 4.8.4 Users will not have the ability to modify comport settings.
- 4.8.5 Cutlist dimensions can be either in decimal format, fractional format, or both.
- 4.8.6 The number of cultists is limited to 100.
  - 4.8.6.1 Cutlist 0 (zero) reserved for TigerStop use.
- 4.8.7 Communications with the controller will not block the main thread of execution.

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- 4.8.8 All windows in the Product Manager will be designed to display on 640 X 480 video resolution screens.
- 4.8.8.1 Product Manager screens will scale up to higher display resolutions.
- 4.8.9 A natural flow through the process from startup to download will be maintained.
- 4.8.9.1 Refer to figure 1.
- 4.8.9.2 At program start, a blank main screen will be displayed.
- 4.8.9.3 User will File->Open to open a source file.
- 4.8.9.4 The Part Select screen will be displayed before going back to the main screen.
- 4.8.9.5 The Main Screen will display the contents of the source file to the user.
- 4.8.9.6 User uploads the cutlist to the controller.
- 4.8.9.7 The program will guide the user through the basic flow if the user tries to circumvent the natural flow of the process.
- 4.8.10 Standard exception handling practices will be used throughout the project.
- 4.8.11 Standard coding practices will be used throughout the project.
- 4.8.12 Project design will follow standard Object Oriented principles.
- 4.8.13 All code modules for the project will be documented.
- 4.8.14 Non-standard components will be used to provide a unique look while still having the feel of a traditional Windows application.
- 4.8.15 Product Manager will maintain a master dictionary of part names.
- 4.8.15.1 Users will be able to add part names to the dictionary.
- 4.8.15.2 Users will be able to delete part names from the dictionary.

## 4.9 Distribution

- 4.9.1 The Product Manager will be distributed by Compact Disk (CD-ROM).
- 4.9.2 The Product Manager setup files will be in a sub directory from the root directory of the CD
- 4.9.3 The CD will autorun.
- 4.9.4 The autorun feature will display a menu for the user to choose what action to perform.

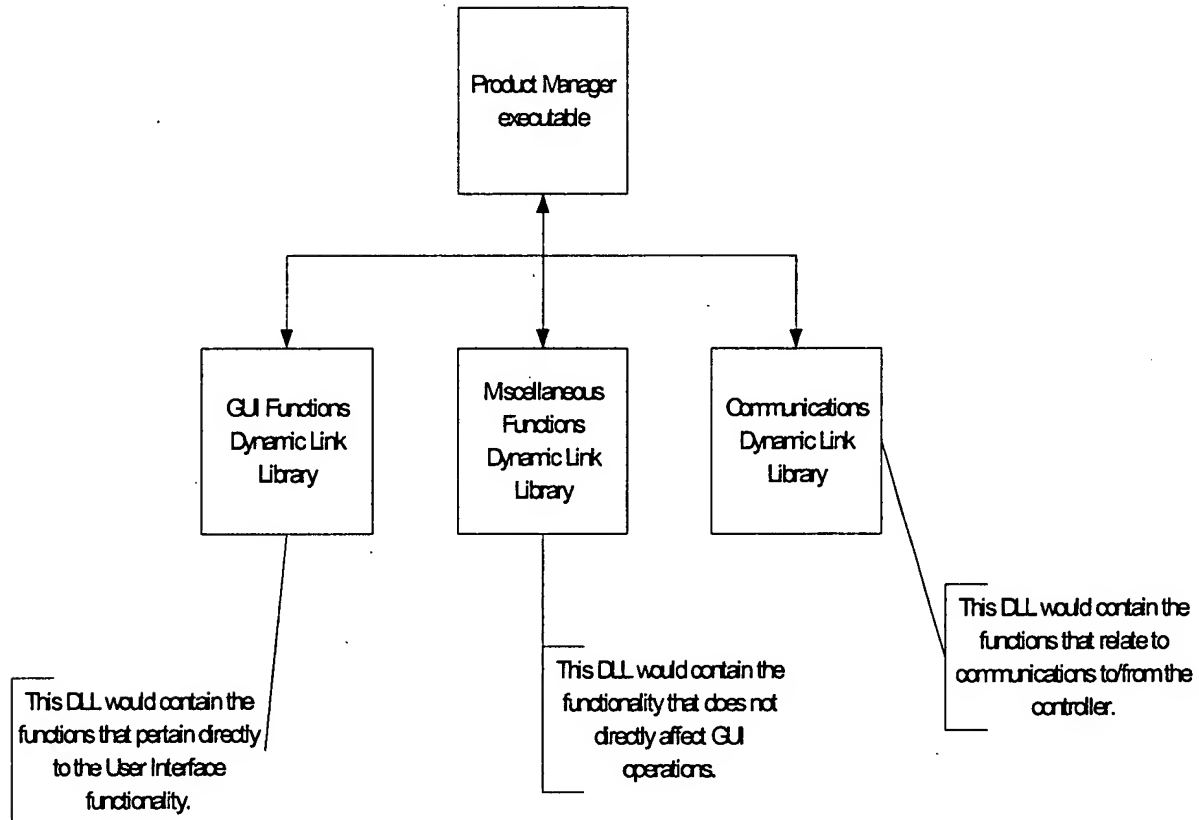
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## 5 Figures

\*Figures are meant to depict what the GUI may look like. The pictures do not represent a definitive approach to the GUI design.

### 5.1 Flowcharts



**Figure 1 Product Manager Top Level Architectural View**

The GUI Functions DLL would be responsible for responding to any event that the User Interface would normally have to handle.

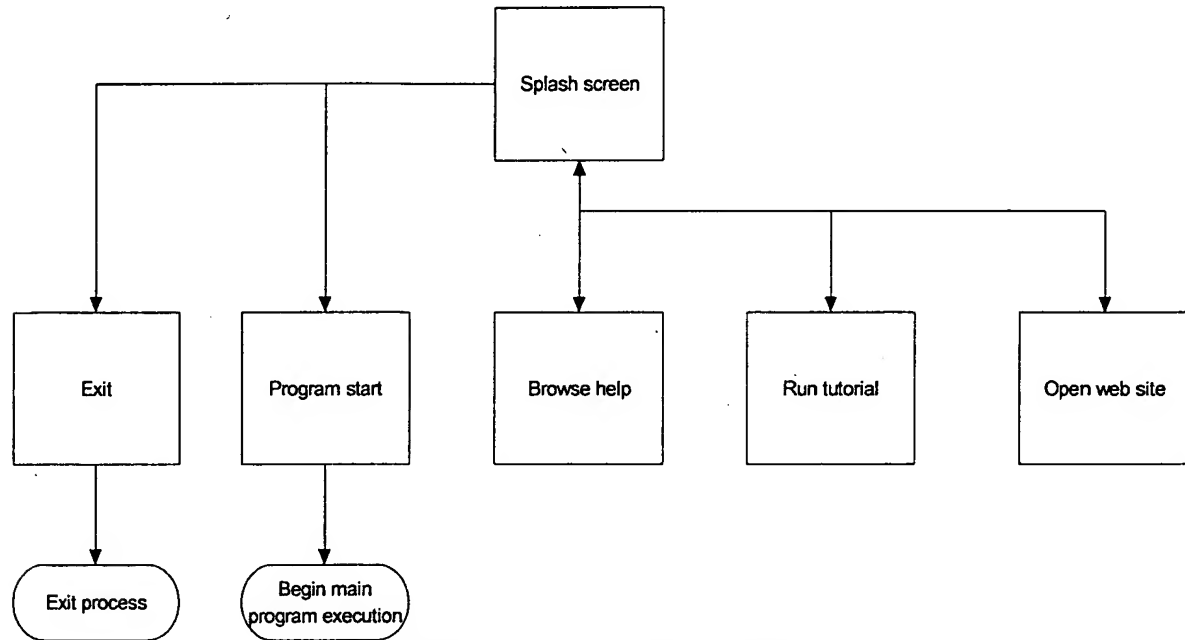
The Miscellaneous Functions DLL would be responsible for handling the operations that do not directly affect the user interface. Data manipulation, file handling, exception handling, etc. are examples of the functions that this DLL will contain.

The Communications DLL will contain all of the functionality required for the Product Manager executable to communicate with the controller unit.

There are several advantages to this type of an architectural arrangement. This type of modularity will allow the program to be easily modified without affecting major program functions. The communications protocol could be easily changed from serial to Ethernet, for example, without any change being necessary to the executable. This will also allow third parties to write programs that could interface to the controller through the public interface of the communications DLL. Changes to the program can be made without affecting other portions of the code. Only the changed modules need be distributed. Distribution is easier. Updates can be made over the Internet.

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**Figure 2 Splash screen functionality flowchart**

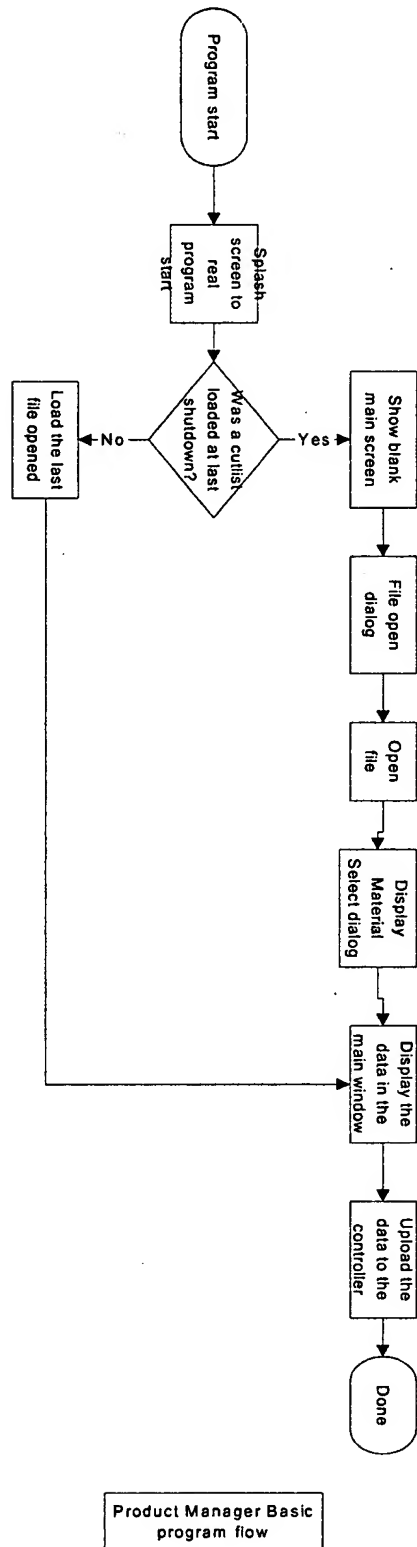


Figure 3 Basic Program Flow



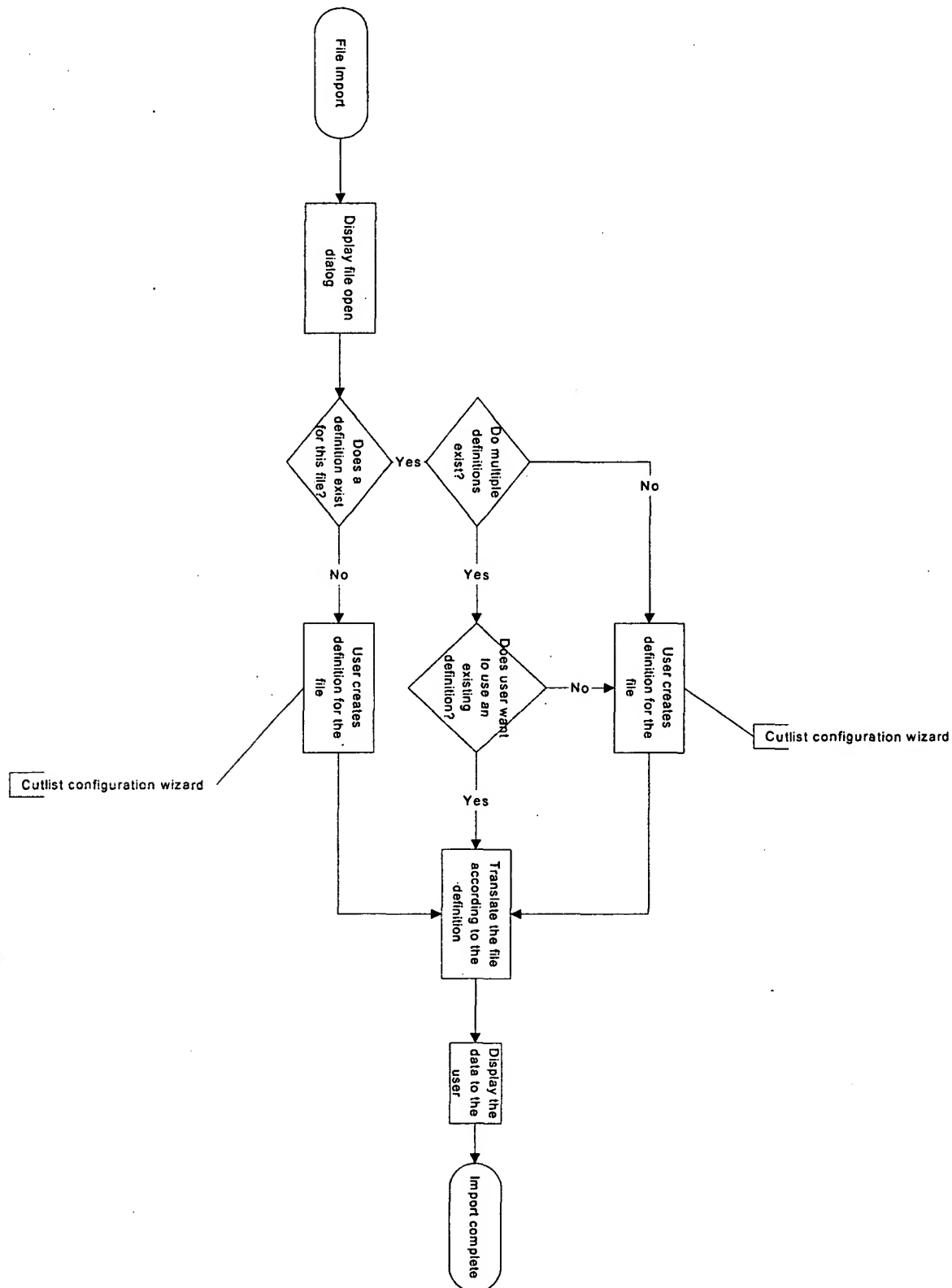


Figure 4 Import File Flow

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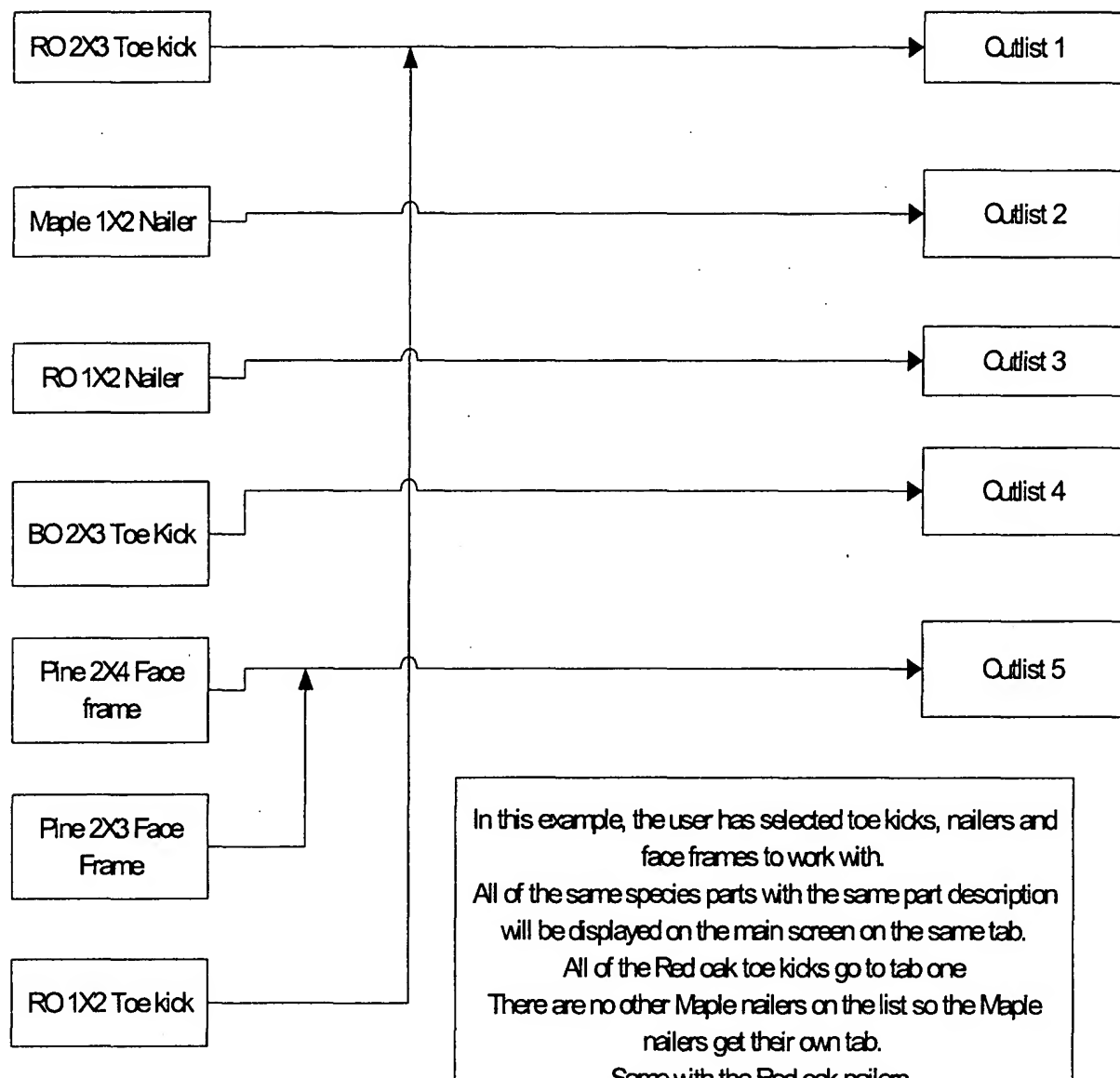
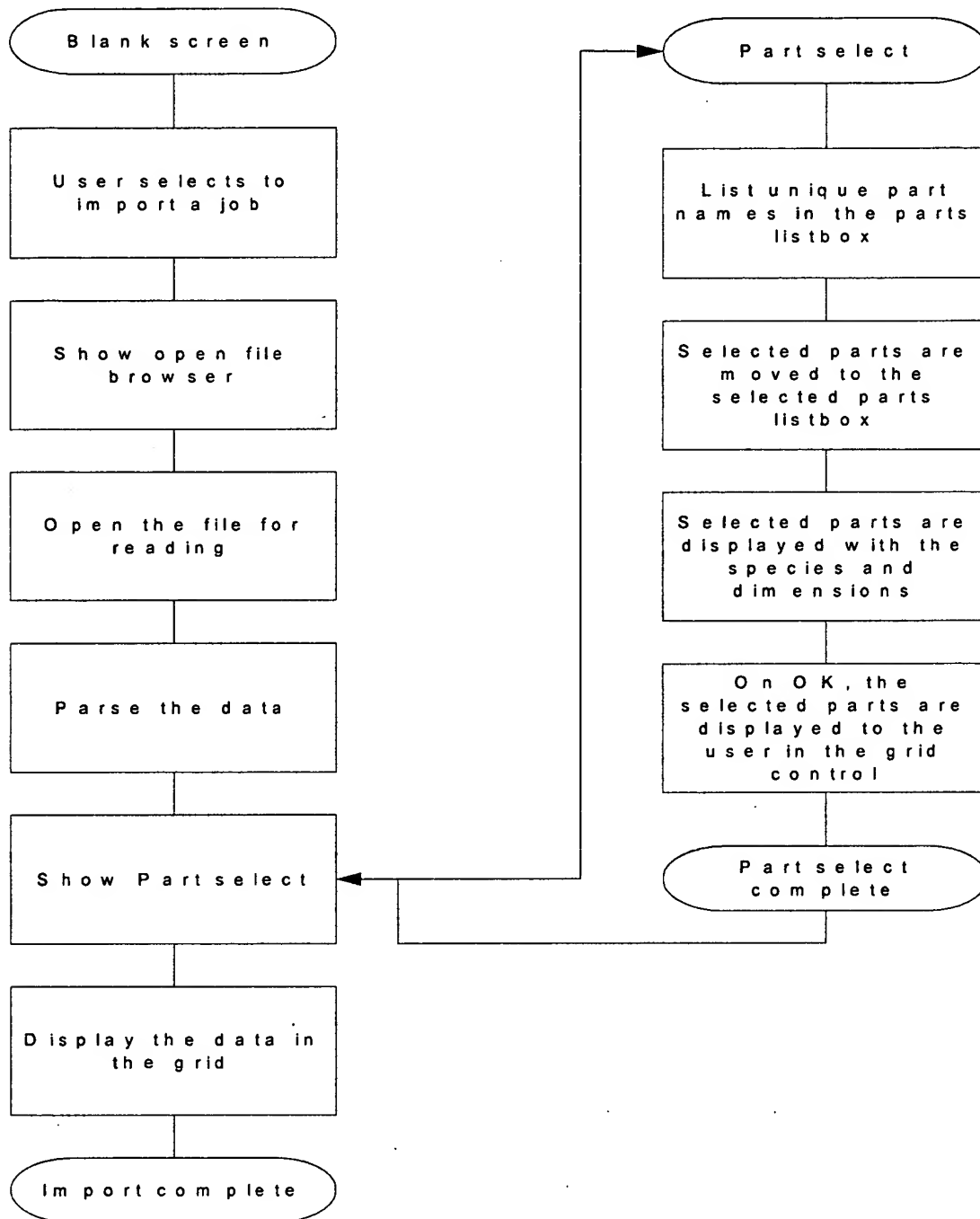


Figure 5 Parts selection to cutlist logic diagram

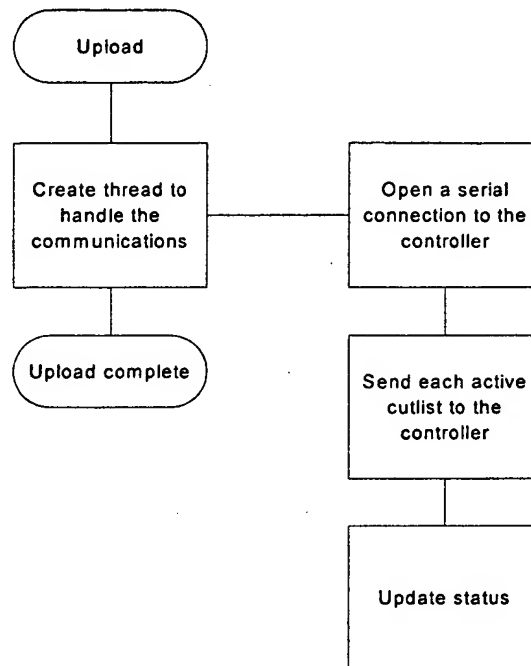
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**Figure 6 Import & Part select interaction**

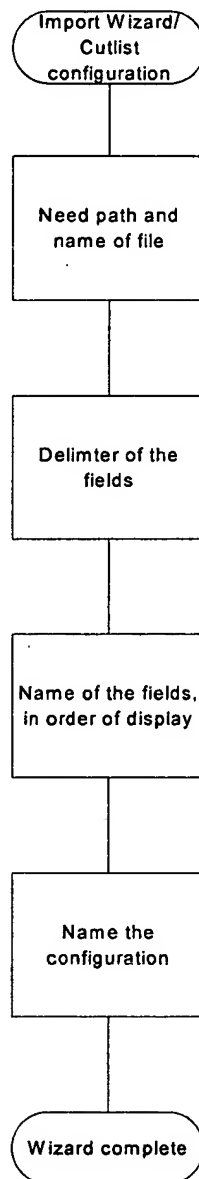
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**Figure 7 Serial communications**

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**Figure 8 Cutlist configuration**

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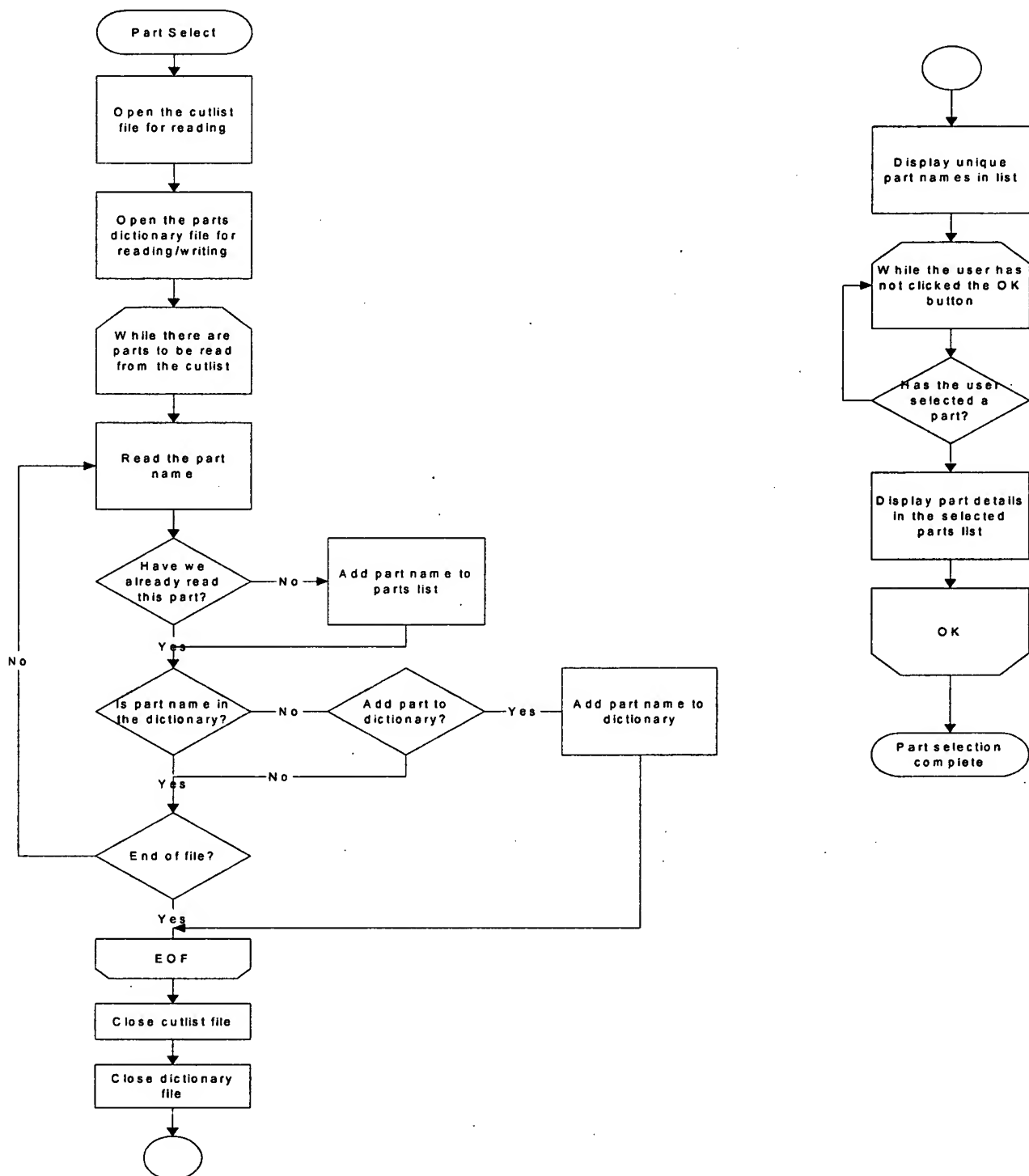


Figure 9 Parts selection

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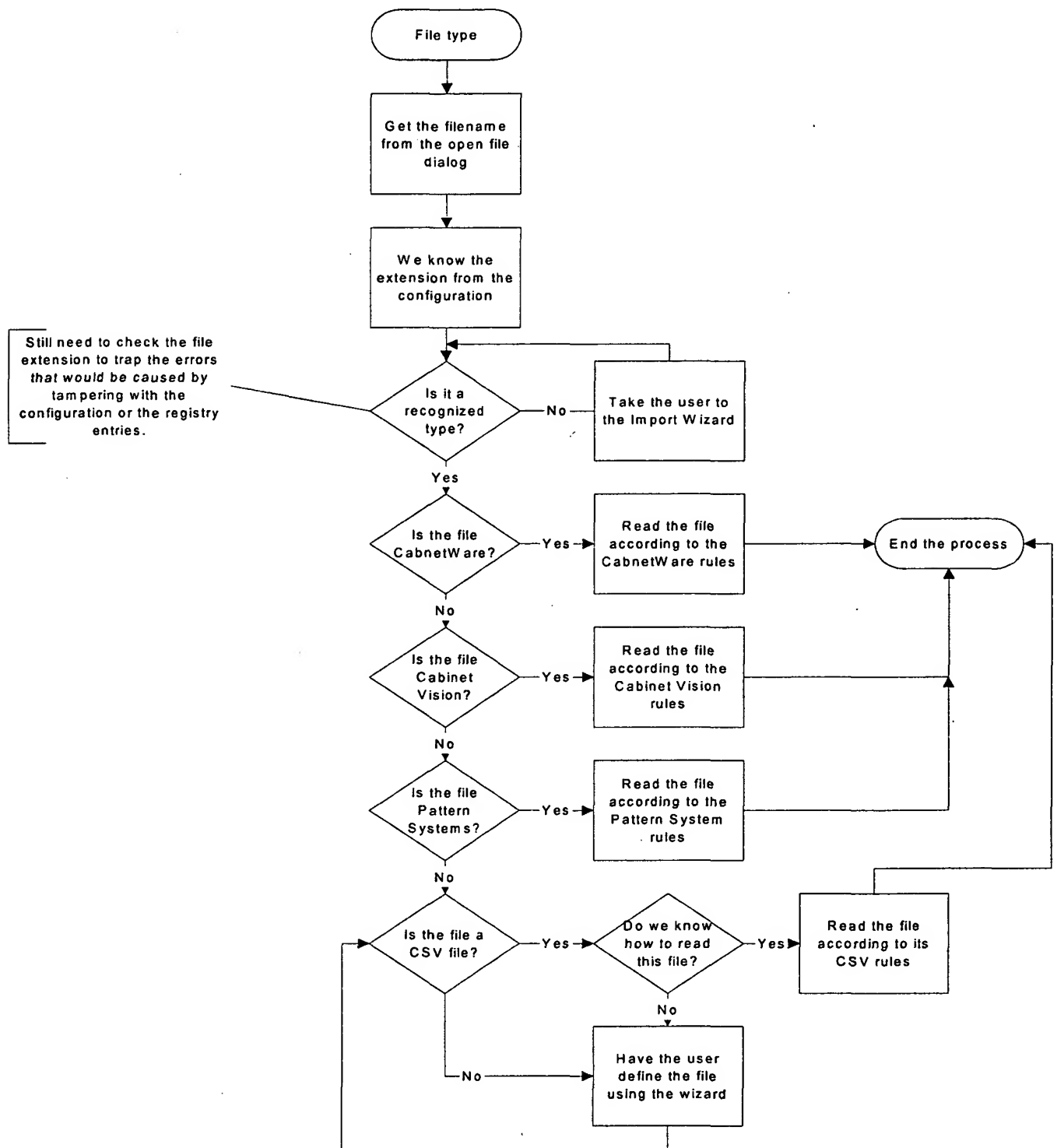


Figure 10 Cutlist file reading flow

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## 5.2 Screen shots

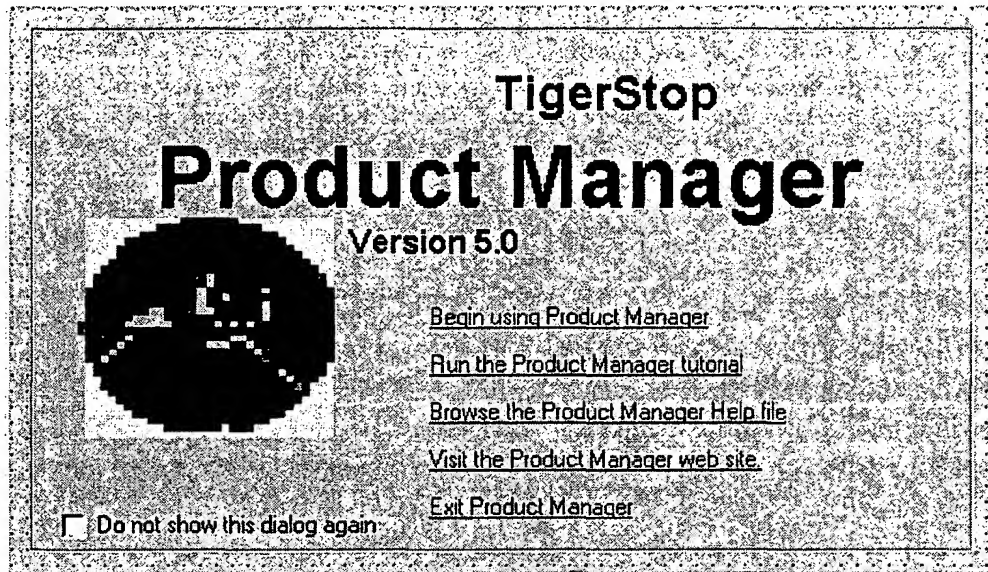


Figure 11 Product Manager Splash screen

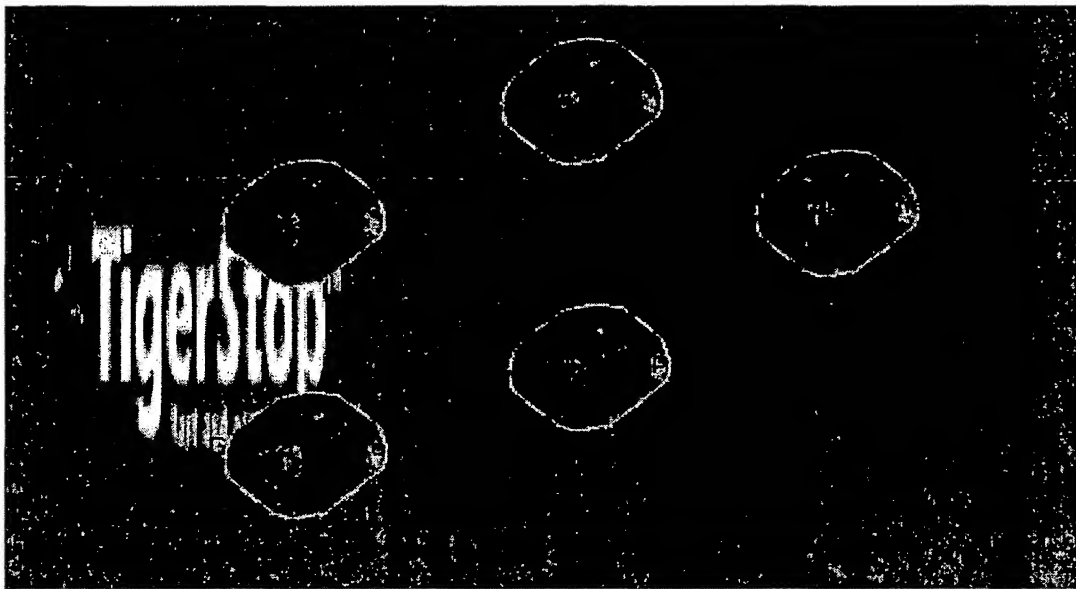


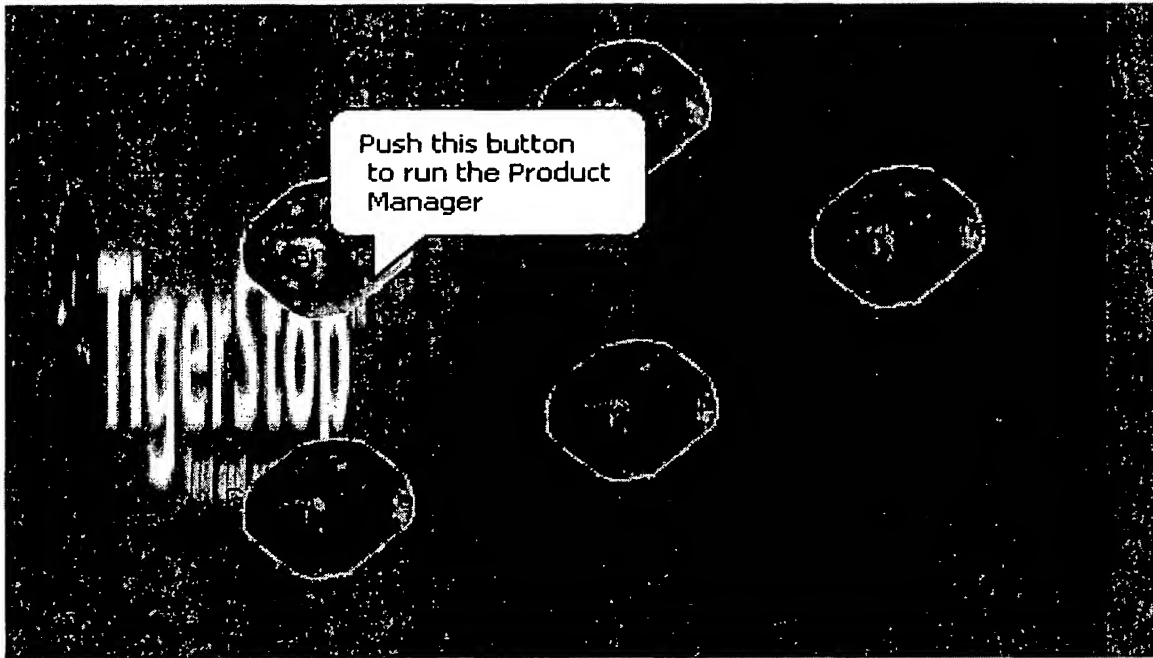
Figure 12 Splash screen concept\*\*

\*\*Concept screen is a depiction of the style that the Product Manager may take. I.e. non-rectangular screens, non-rectangular buttons, colors other than the Microsoft gray, etc. Button shapes and sizes are only a depiction of what is possible. The buttons depicted here are flat style buttons, no border is drawn around the button.

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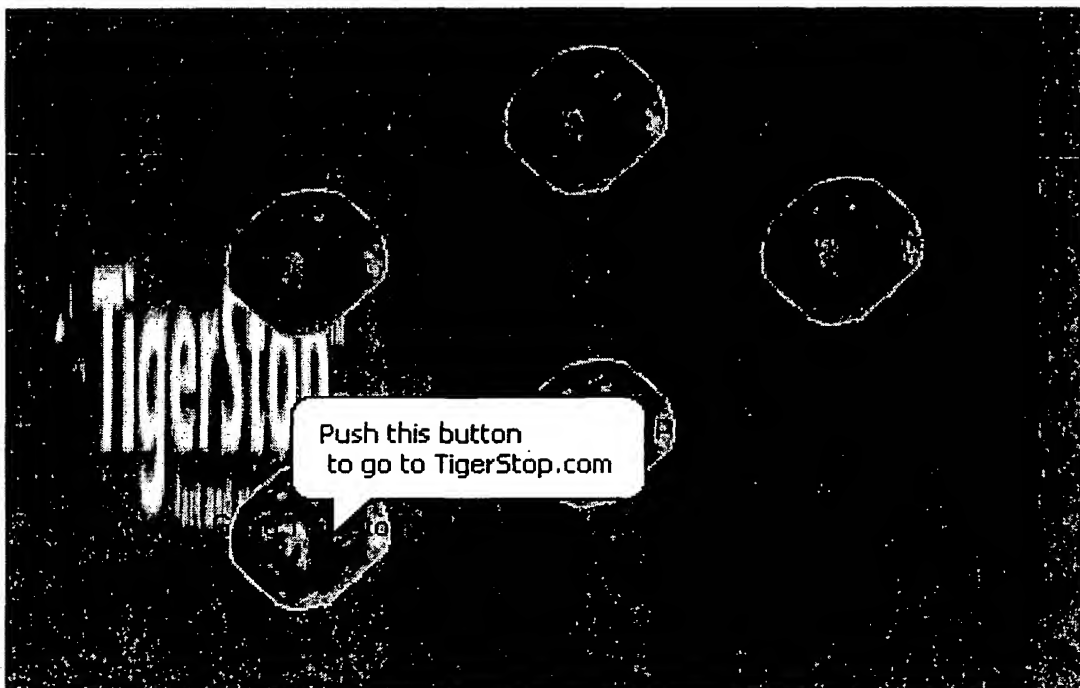


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**Figure 13 Splash screen concept**

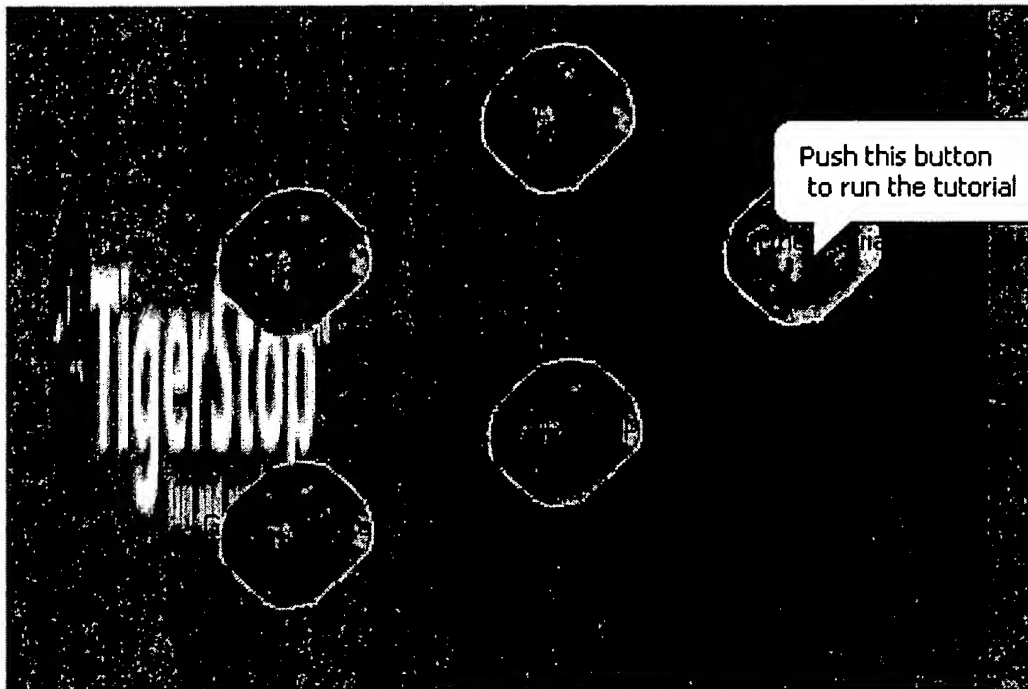
Balloon style tool tip help is displayed when the mouse hovers over the button.



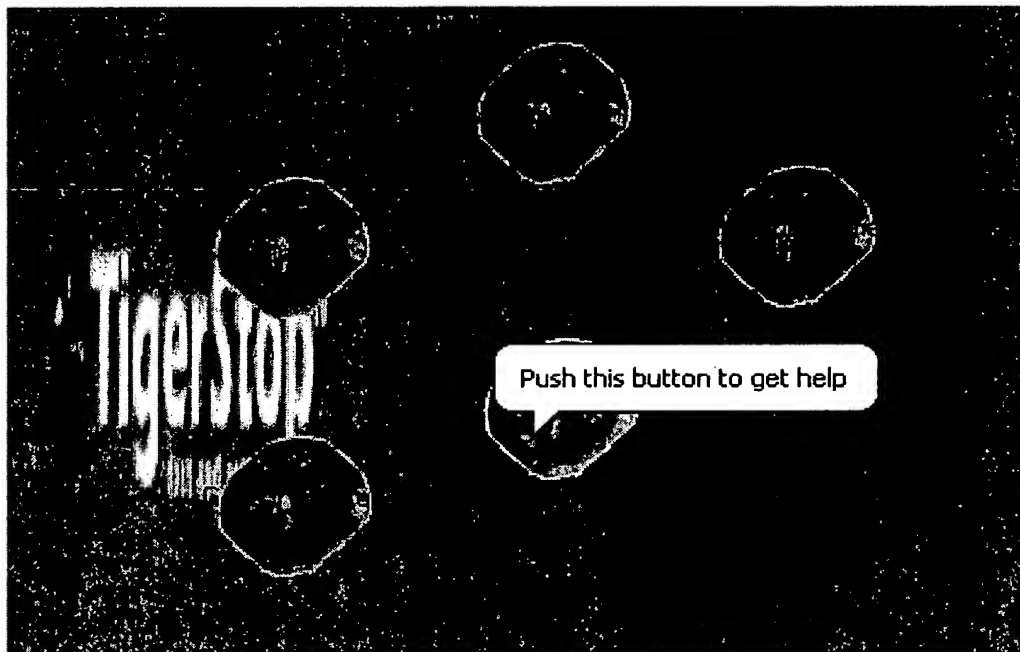
**Figure 14 Splash screen concept**

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**Figure 15 Splash screen concept**

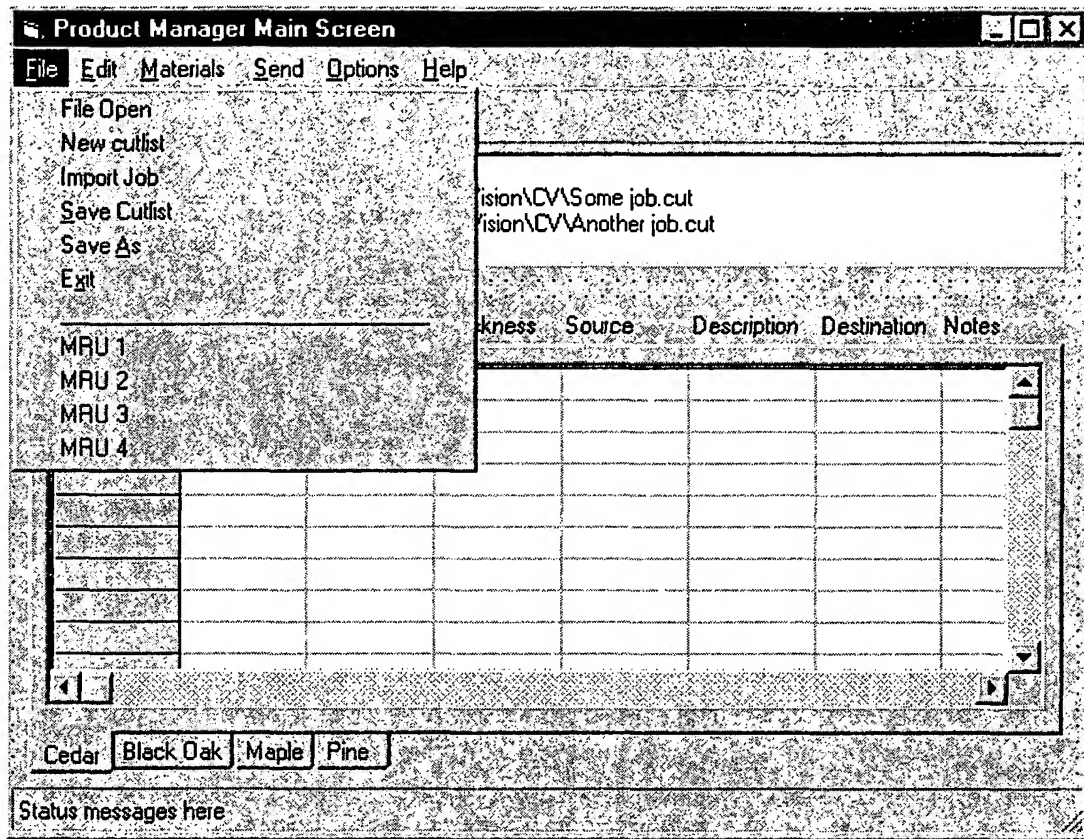


**Figure 16 Splash screen concept**

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**Figure 19 Product Manager File menu**

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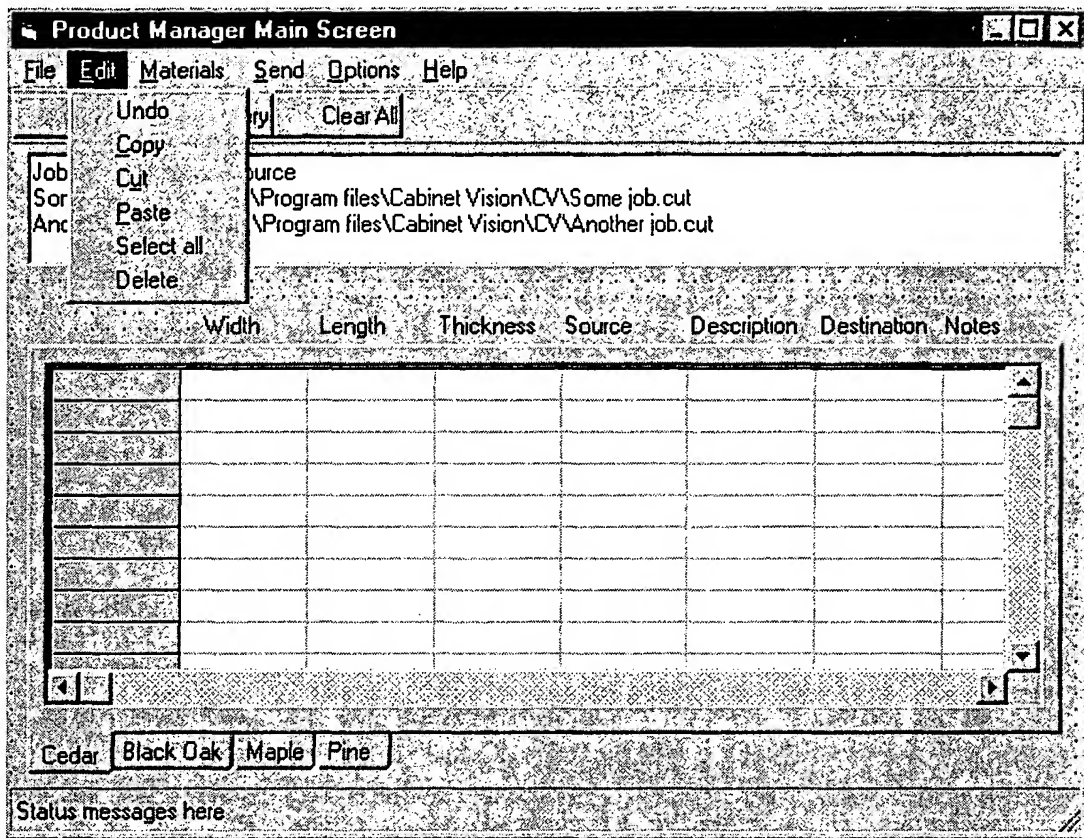


Figure 20 Product Manager Edit menu







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Software Requirements: Product Manager.doc	

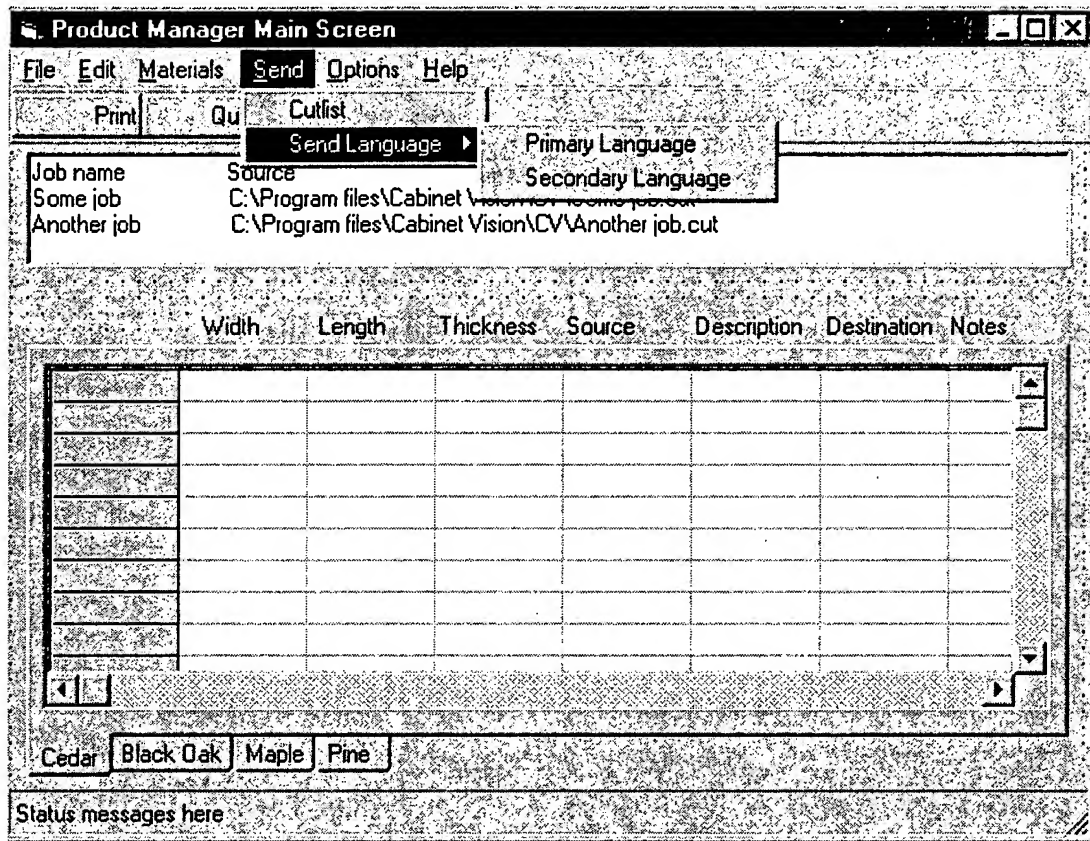


Figure 23 Product Manager Send Language



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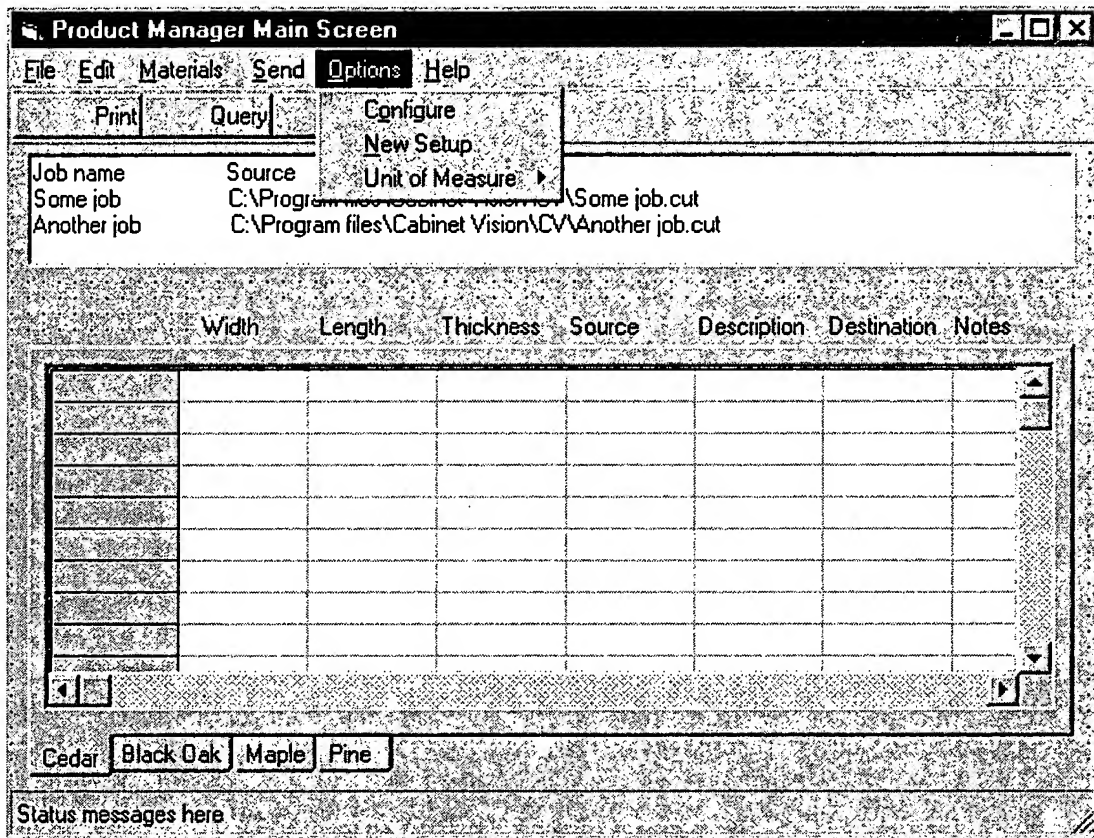


Figure 24 Product Manager Options menu

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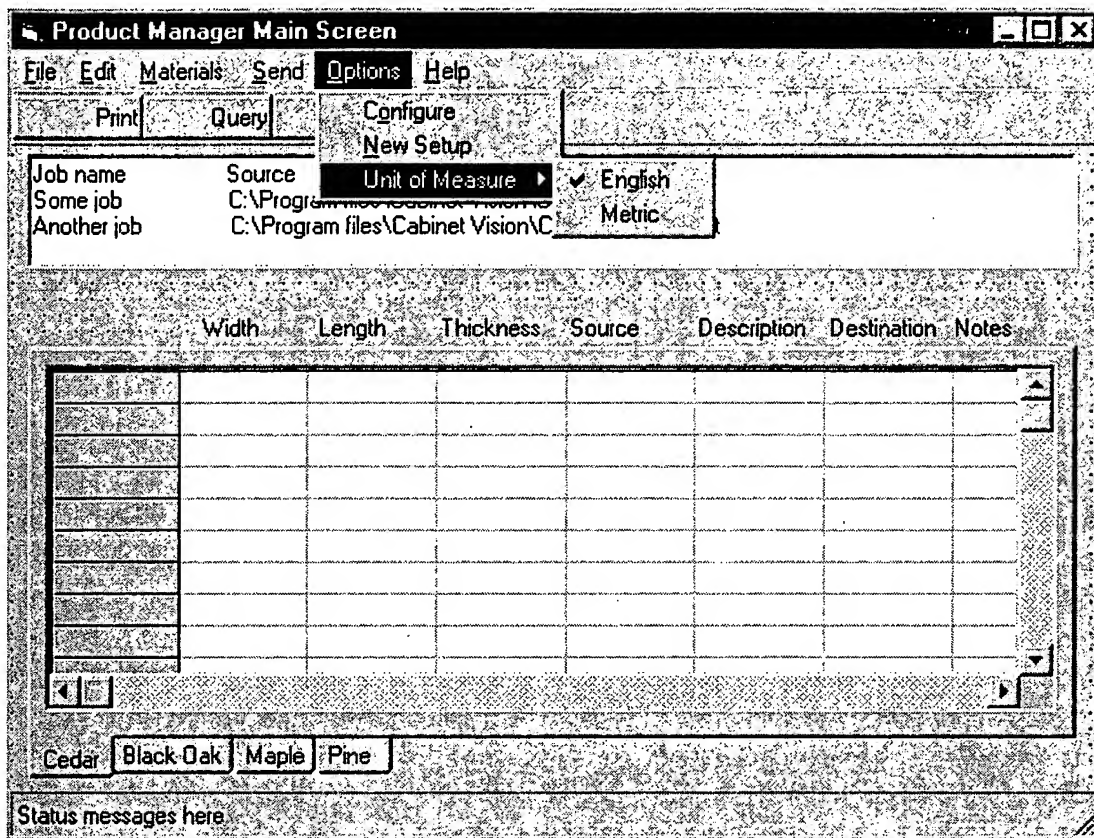


Figure 25 Unit of Measure Option

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Software Requirements: Product Manager.doc	

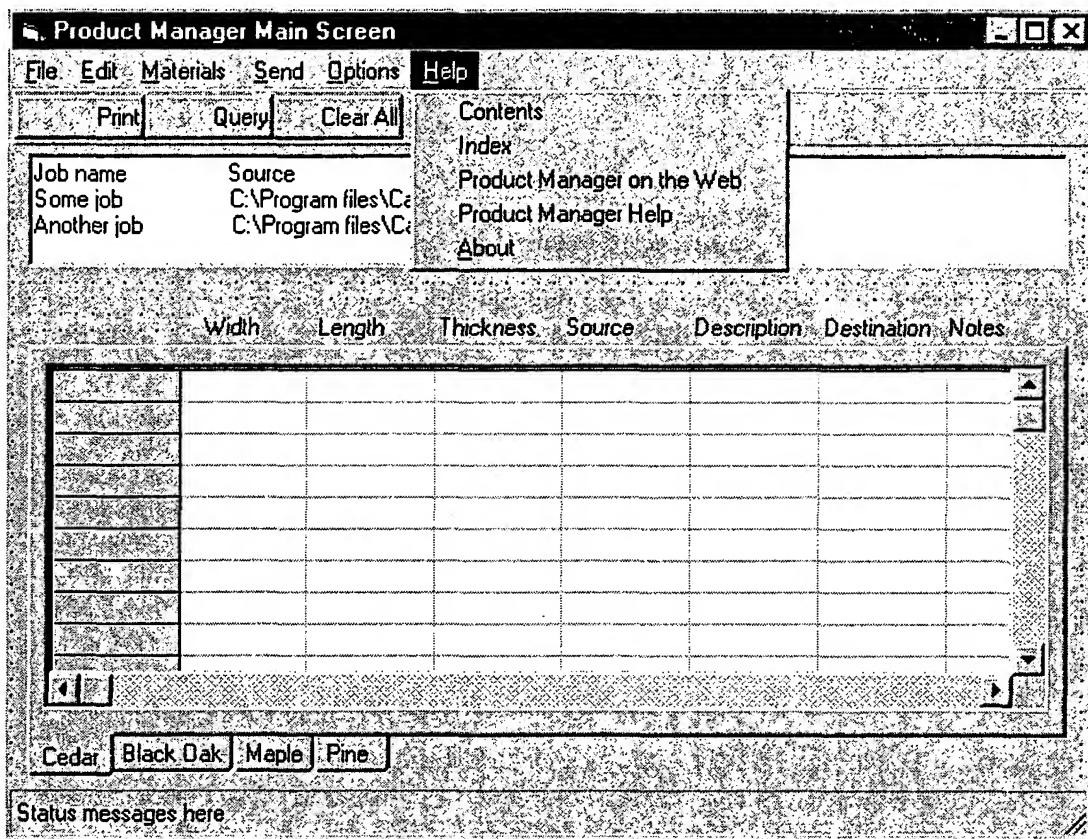


Figure 26 Product Manager Help menu

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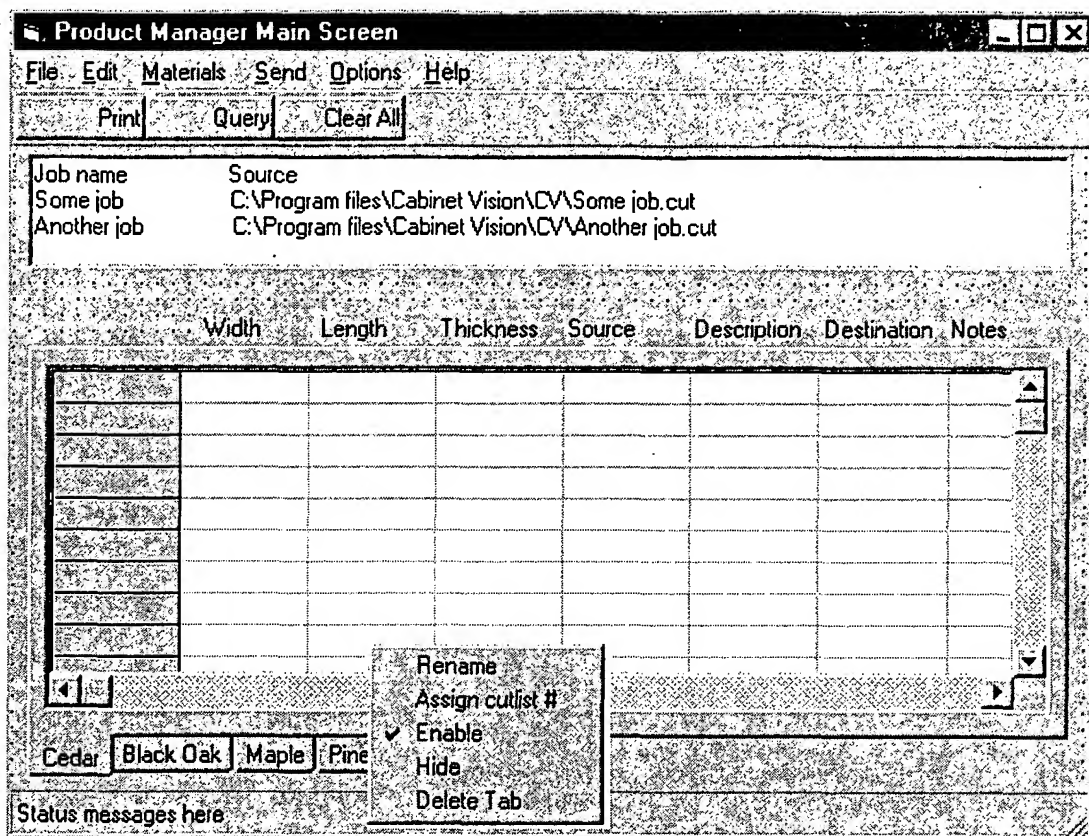


Figure 27 Tab Right Click Menu

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Software Requirements: Product Manager.doc	

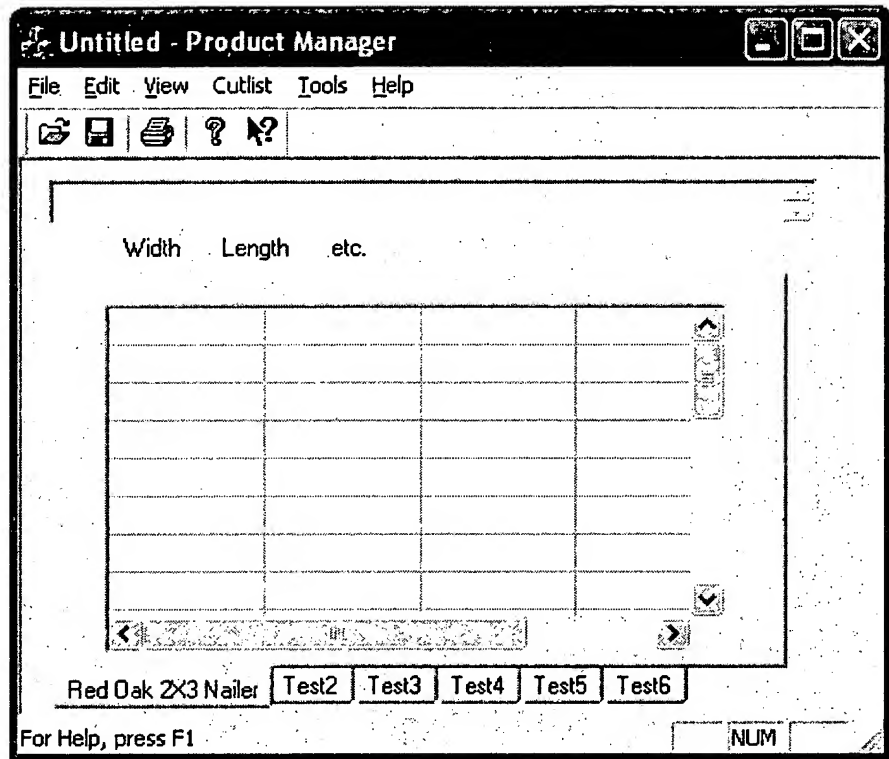


Figure 28 Product Manager Main screen new style

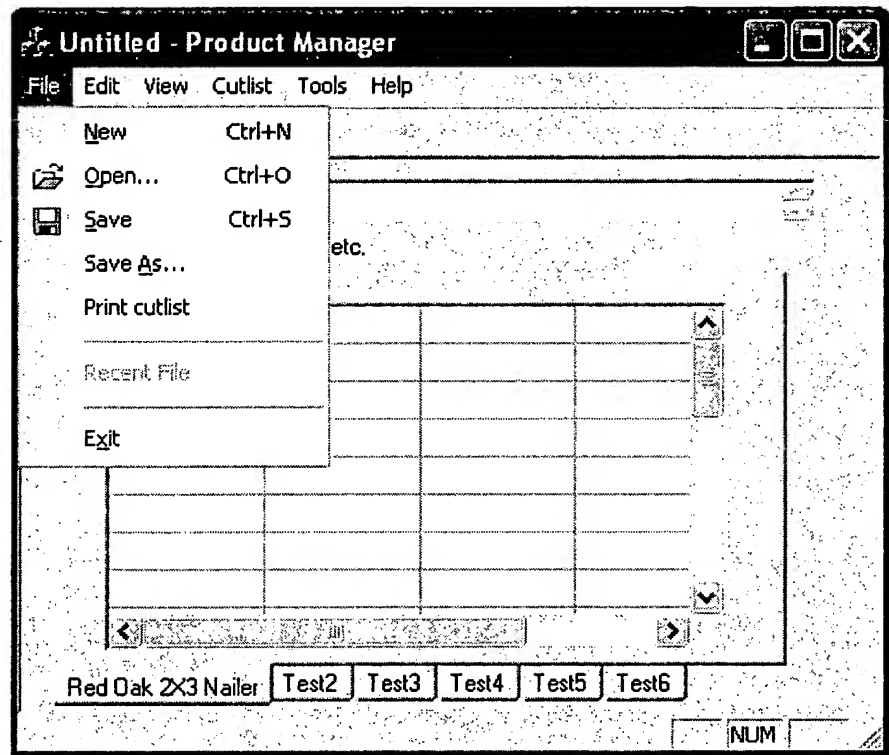


Figure 29 Product Manager File menu new style

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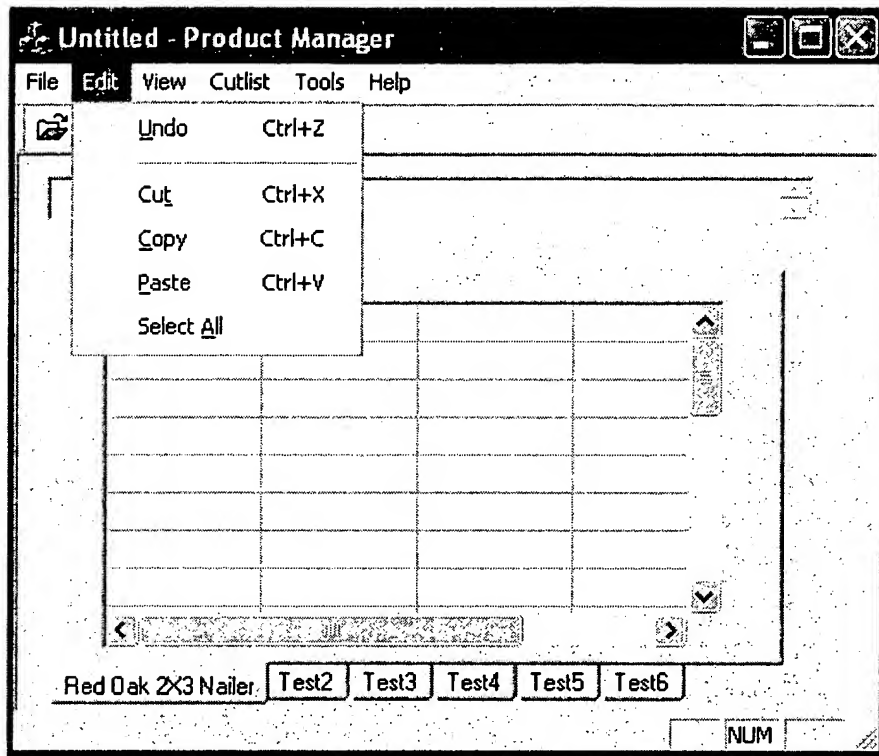


Figure 30 Product Manager Edit menu new style

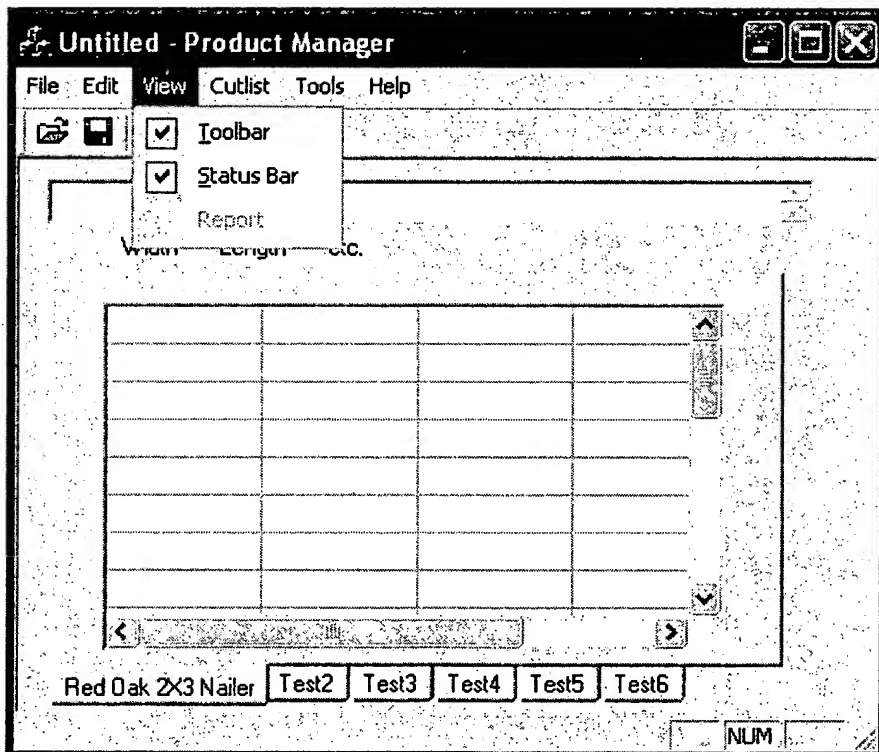


Figure 31 Product Manager View menu new style

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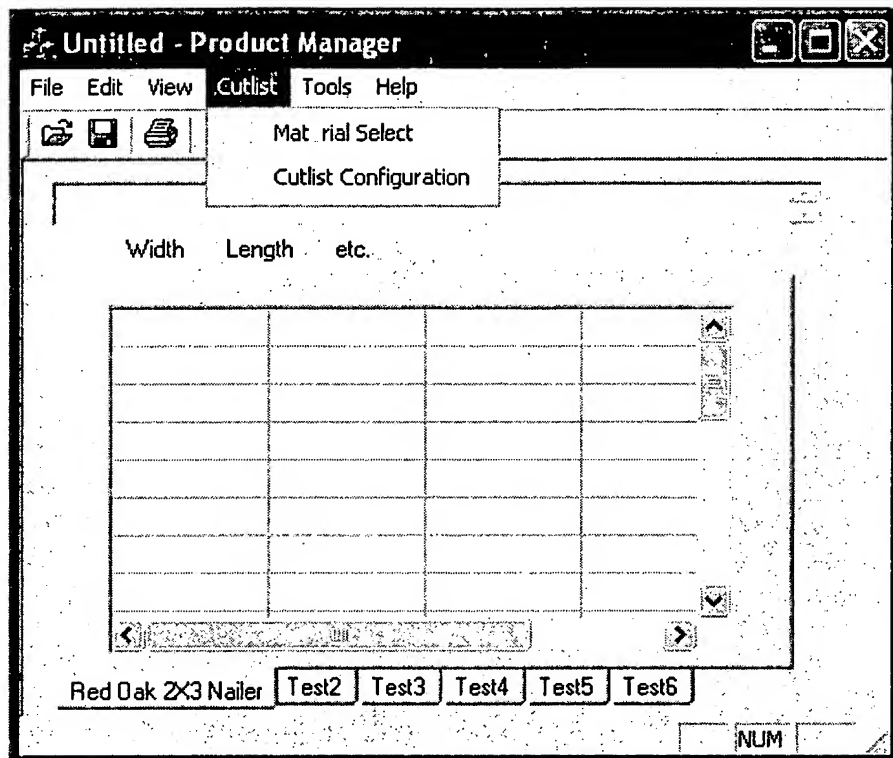


Figure 32 Product Manager Cutlist menu new style

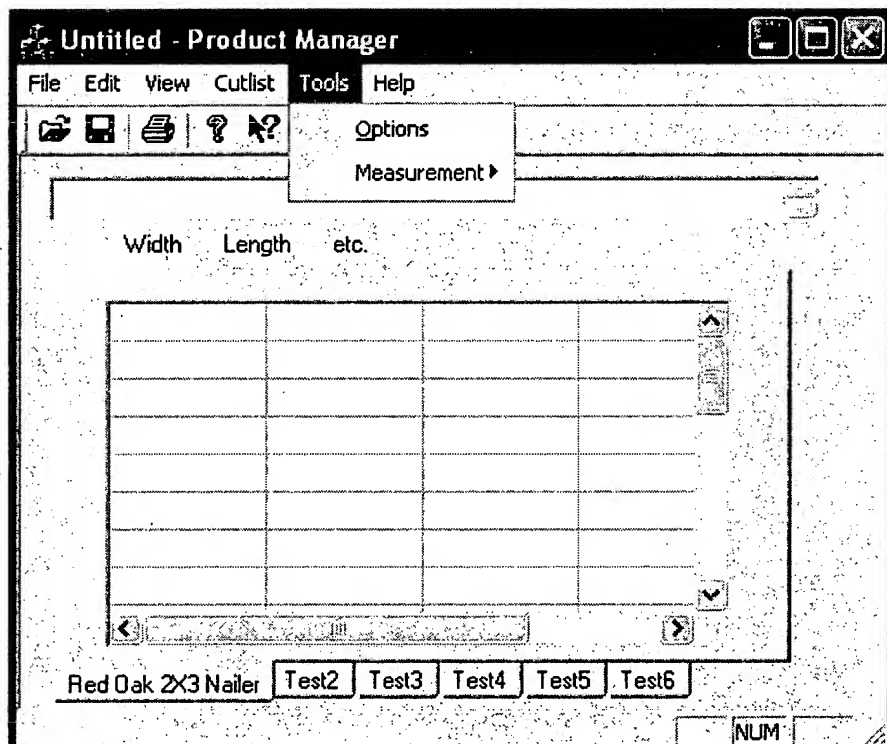


Figure 33 Product Manager Tools menu new style

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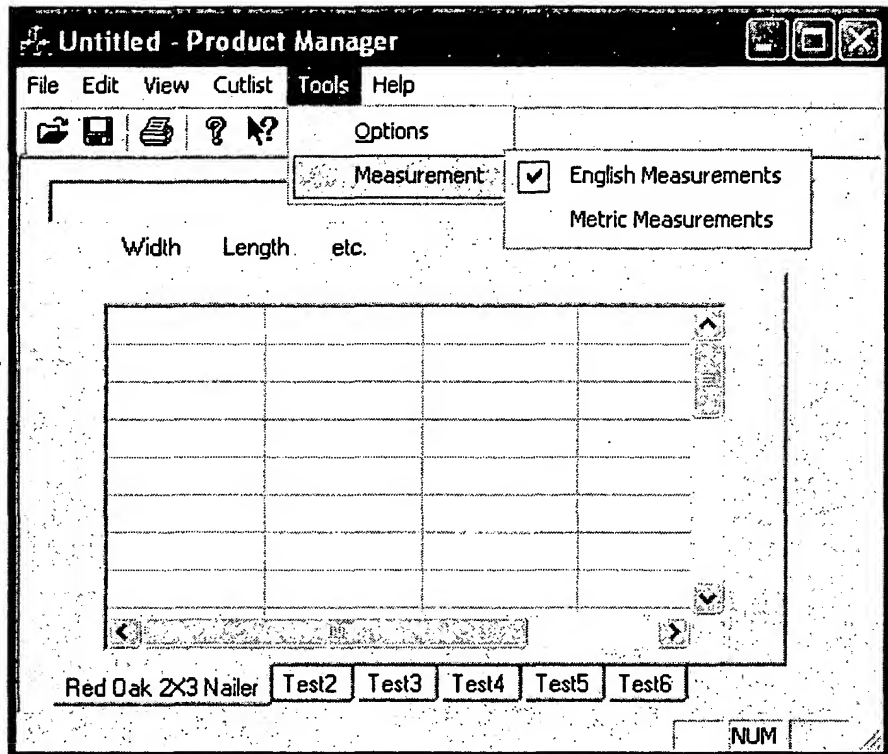


Figure 34 Product Manger Measurements menu new style

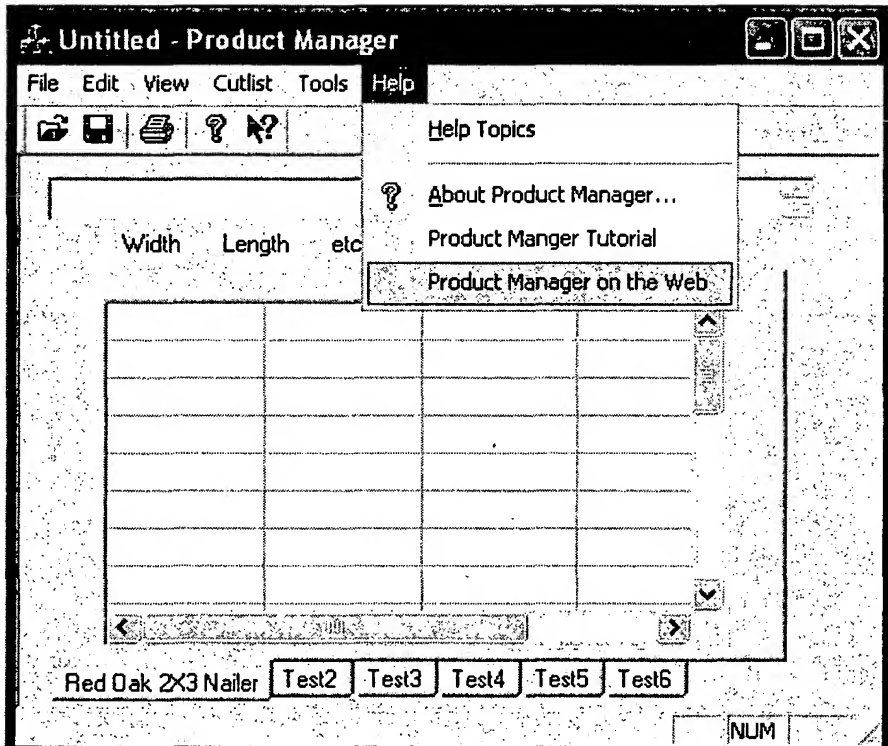
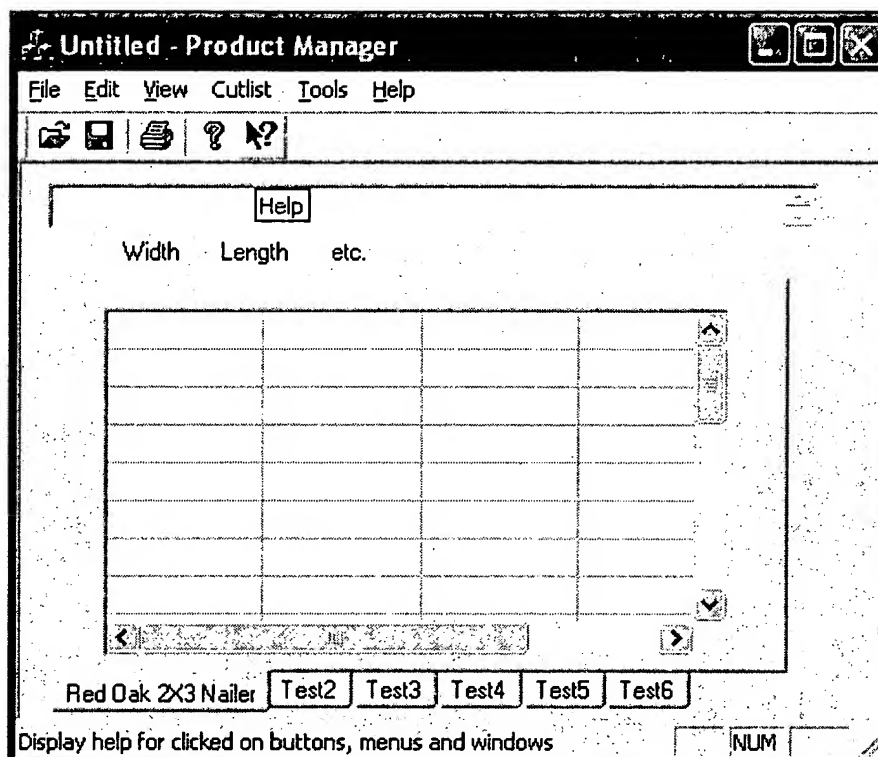


Figure 35 Product Manager Help menu new style

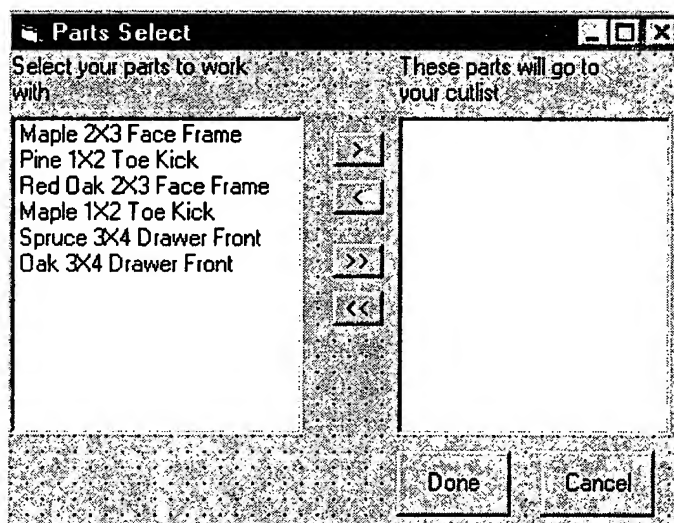
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**Figure 36 Product Manager Tooltip and status indicators**



**Figure 37 Product Manager Parts Select**

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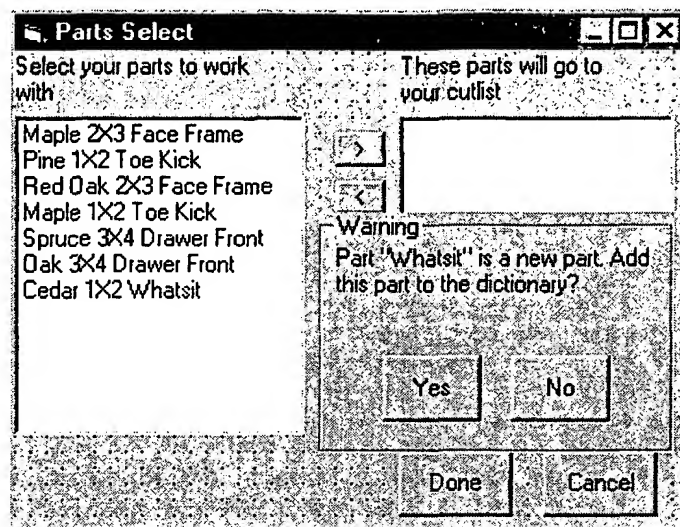


Figure 38 Product Manager Parts New part

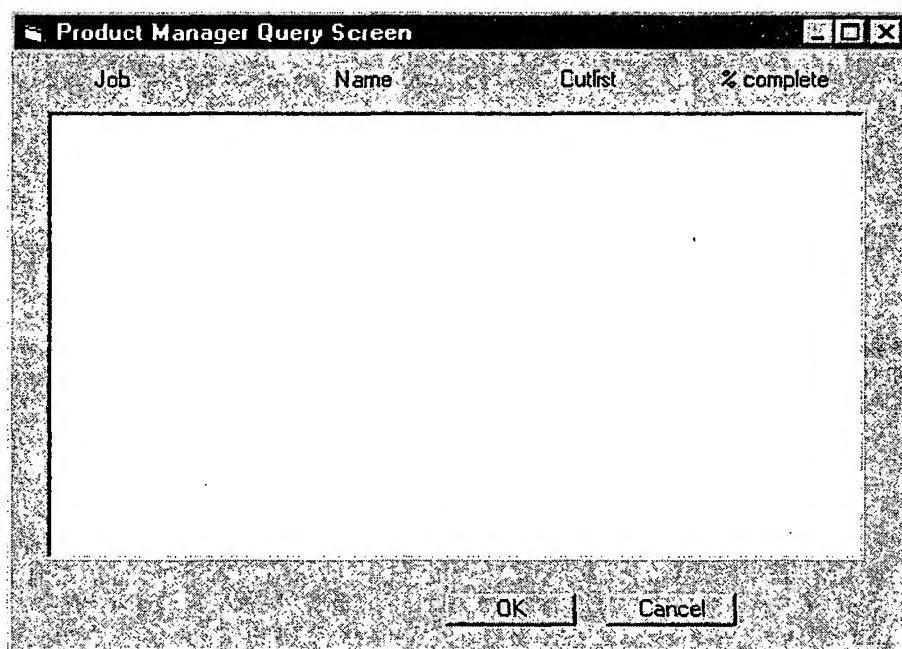


Figure 39 Query Screen

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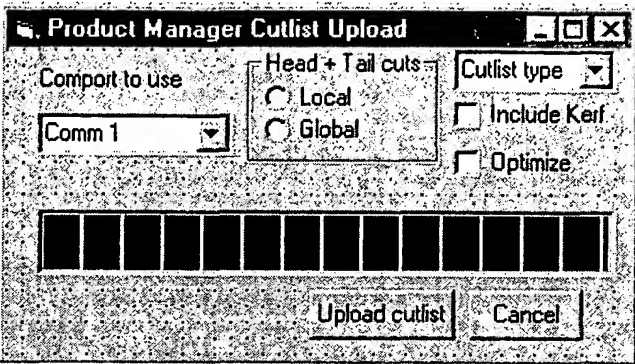


Figure 40 Cutlist upload dialog

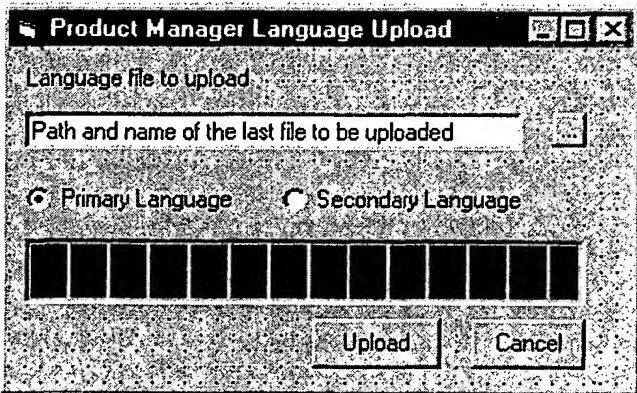


Figure 41 Language upload dialog

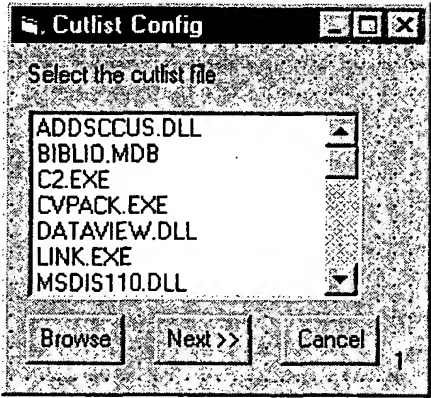


Figure 42 Cutlist Configurator Wizard Screen 1

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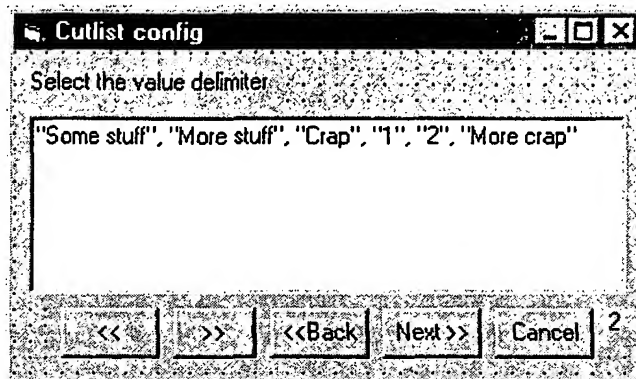


Figure 43 Cutlist Configurator Wizard Screen 2

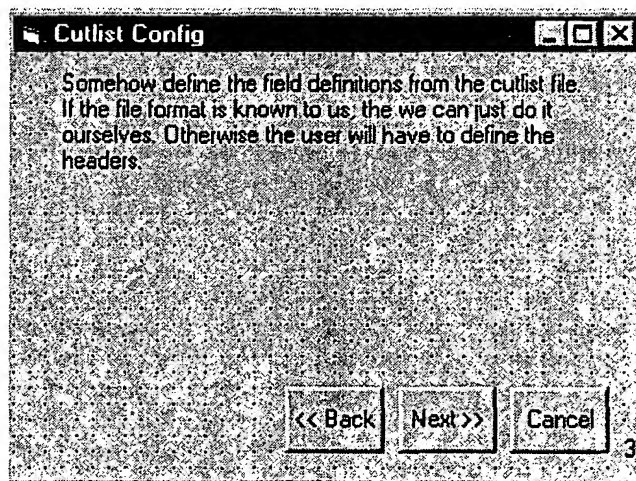


Figure 44 Cutlist Configurator Wizard Screen 3

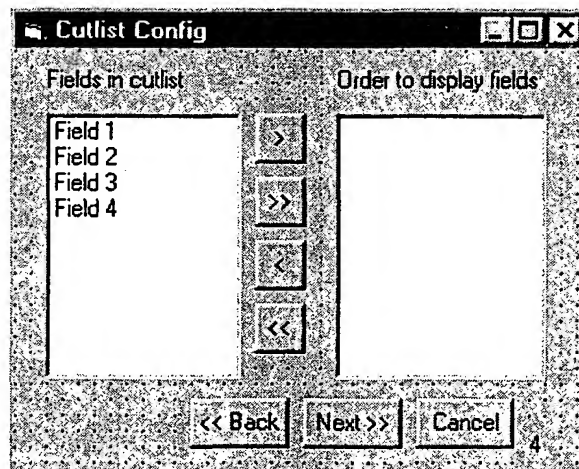


Figure 45 Cutlist Configurator Wizard Screen 4

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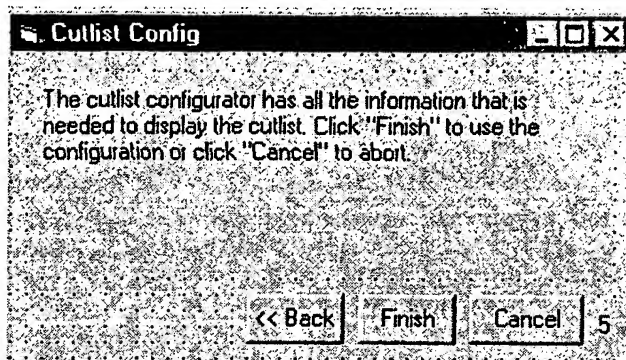


Figure 46 Cutlist Configurator Wizard Screen 5

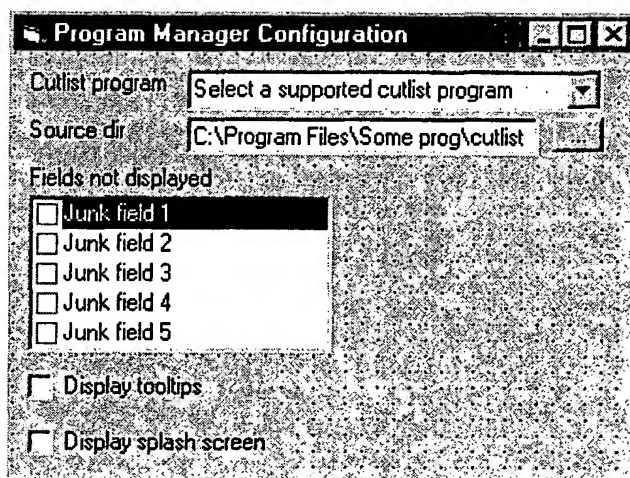


Figure 47 Product Manager Configuration

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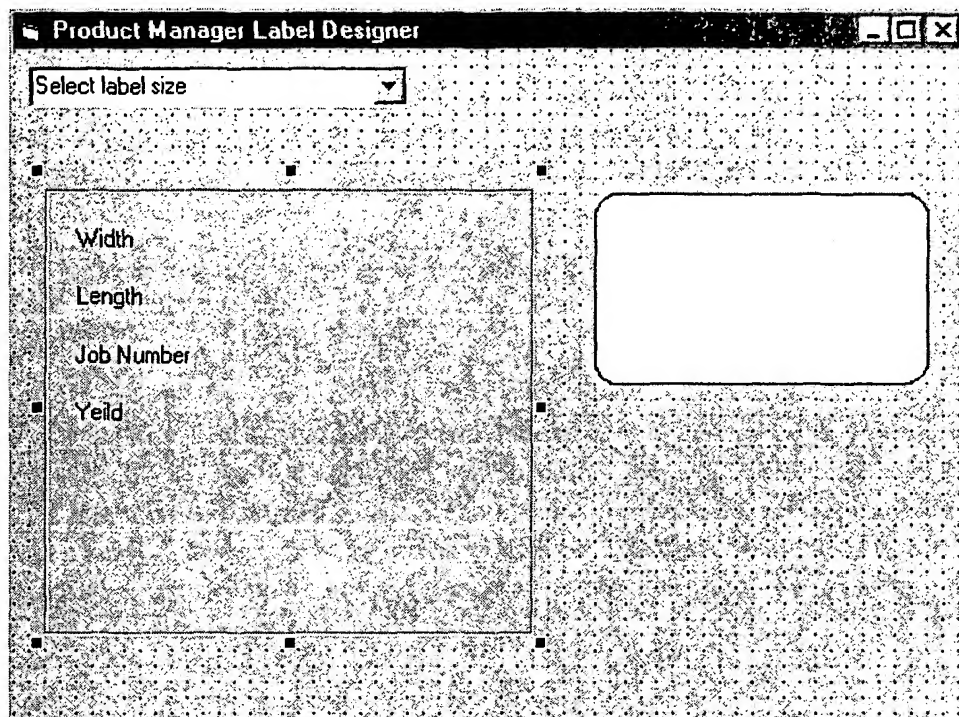


Figure 48 Label Designer 1

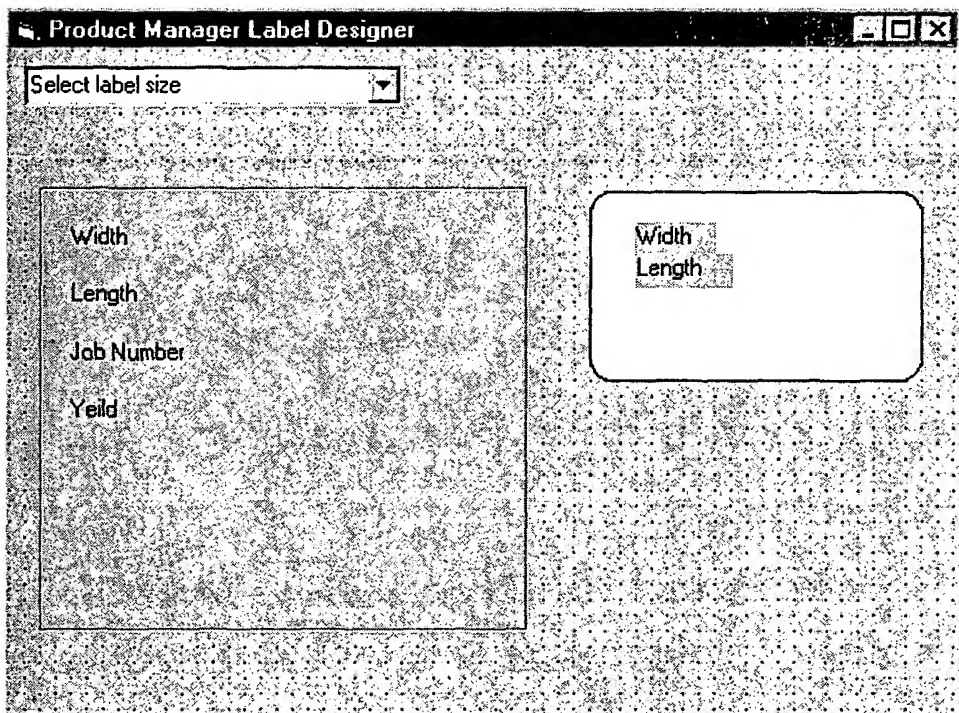


Figure 49 Label Designer 2

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## 7 File Formats

### 7.1 Cabinet Vision

Cabinet Vision™ produces a cutlist file with a .cut extension. The file is saved in plain ASCII text. The fields are comma-separated values. Each line is one record. The format of the file is as follows.

Field Number	Field Name	Data type
1	Job Number	String
2	Wall Number	Number
3	Room Number	Number
4	Cabinet number	Number
5	Quantity of item	Number
6	Width of item in decimal	Number
7	Width of item in fractional form	String
8	Length of item in decimal	Number
9	Length of item in fractional form	String
10	Thickness in decimal	Number
11	Thickness in fractional form	String
12	Part number	Number
13	Part name	String
14	Material number	Number
15	Material name	String
16	Material list number	Number
17	Grain preference	Number
18	Optimize	Number
19	Stock part	Number
20	Waste factor	Number
21	Cost	Number
22	Cost unit	Number
23	Labor in minutes	Number
24	Spare 1	Number
25	Spare 2	Number
26	Spare 3	Number
27	Spare 4	Number
28	Cabinet name	String
29	Comment	String
30	Spare A	String
31	Spare B	String
32	Spare C	String

### 7.2 CabnetWare

### 7.3 Pattern Systems

### 7.4 Comma Separated Values

Comma Separated Values (.csv) files vary greatly in the number and kind of fields that are contained within the file. CSV files will almost always be a user-defined cutlist. For our purposes, we will define a CSV file as an ASCII text file containing multiple fields separated by comma. The end user will have to provide a definition of what the field definitions are.

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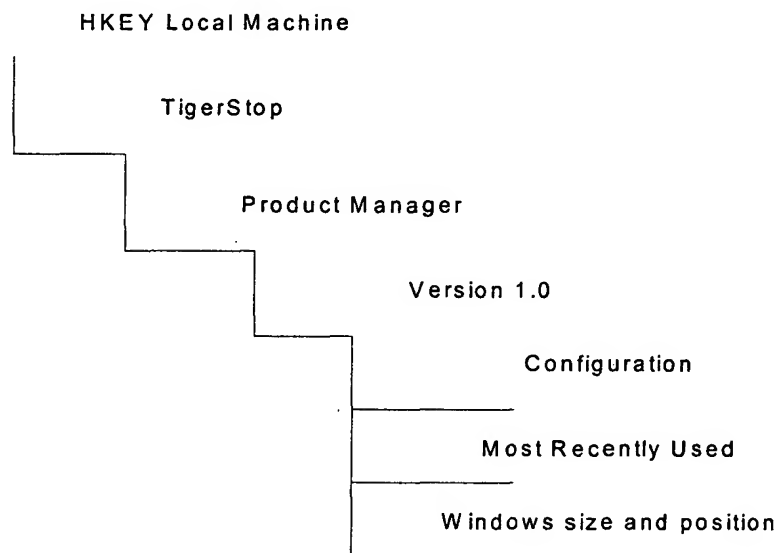
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Software Requirements: Product Manager.doc	

## 7.5 Product Manager Setup Fil

The setup file allows the Product Manager to recreate a users work session restoring all of the controls and data to the state that the user had left them when the user exited the program or saved the setup file. Also known as "workspace" saving and restoring.

# 8 Registry and Directory Structures

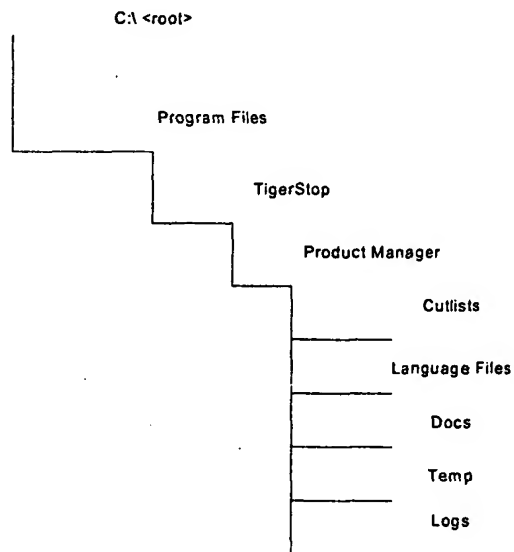
## 8.1 Registry





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## 8.2 Directory <default>



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## 10 Glossary

.csv – A Comma Separated Values file.

.cut – A Cabinet Vision cutlist file.

Kerf – The width of the cut that the saw blade makes.

Comma Separated Values – A text file that contains various fields that are separated by commas.

Cutlist – A sequence of pre-defined cuts that the TigerStop™ will make.

Field – Fields contain a specific type of value in files. Dimension is an example of a field name. Fields are enclosed in double quotation marks (") and separated from each other by commas.

Material – One or more parts that have all the same wood species or other material, all the same width and all the same thickness.

Link – Product Manager's way to interpret the user's cutlist.

Pusher –

Pattern – A type of cutlist that the cuts will be made in the order in which they are entered into the cutlist.

Set Point –

SRS – Software Requirements Specification.

Key –

Download – The process by which information is retrieved from a remote device.

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Upload – The process by which information is sent to a remote device.

Excel – A spreadsheet program developed by Microsoft Corp.

Cabinet Vision – A drawing program used by the woodworking industry to generate visual depictions of the finished product as well as cutlist files.

GUI – Graphical User Interface

UI – User Interface

User Interface – The visual parts of the program that the user can interact with, windows, buttons, combo boxes, etc.

Event – A signal generated by the operating system that notifies the application that something has happened that the application may want to handle. A user clicking a button is one example of an event.

Send – Sending information to a remote device. See Upload.

TigerStop – A precision positioning system used to automated processes generally used in the woodworking/cabinetry industries.

TigerStop Inc. – The company that manufactures TigerStops.

Precision Automation – Parent company for TigerStop Inc.

## **11 Acknowledgements**

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Cabinet Vision is a registered trademark of Cabinet Vision Inc.

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